The Evaluation of the Medicine Hat Model for Teacher Supervision and Evaluation

Final Report

Myrna L. Greene

Alberta
EDUCATION

Please Note

The views and recommendations expressed in this report are the views of the researchers and not necessarily those of the Department of Education.

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The Evaluation of the Medicine Hat Model for Teacher Supervision and Evaluation

Final Report

Myrna L. Greene
Project Director

Prepared for the Medicine Hat School District No. 76
under contract to Alberta Education, Edmonton, Alberta

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Finally, we wish to thank all of the teachers and administrators who participated in the research. They gave their time, their opinions, their suggestions and their assistance with unfailing good humor and cooperation, in spite of the heavy demands on their time. They prepared videotapes, completed questionnaires, allowed us into classrooms, participated in interviews, recorded in their journals and chatted with us informally, all in a spirit of cooperation and support. Without them this study could not have been completed.

ABSTRACT

The purpose of this three year research evaluation project was to describe and assess the impact of the implementation of a Model for Teacher Supervision and Evaluation in the Medicine Hat School District #76. The Model was intended to provide training and practice in peer supervision for all District teachers and administrators with a view to developing a defensible evaluation and supervision system that would enhance teaching and learning in the schools. Using a variety of methods including classroom observations of teachers and students, analysis of videotaped conferences, questionnaires, formal and informal interviews and in-depth case studies, the researchers examined the effects of the Model on teacher and student behaviors and perceptions, the implementation and evolution of the Model, and its impact on District policies, practices and culture.

Although three years is a short time in which to expect major observable changes in a project of this magnitude, the Model has had a significant positive impact on district evaluation policies and practices, on the quality and quantity of teacher observations and visitations, on conferencing behaviors and in enhancing feelings of professionalism. The research/evaluation report describes factors which facilitated or hindered the success of the Model in various contexts and describes situations in which the changes have become an integral part of the school culture and which could serve as a model for others attempting innovations of this nature.

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PREFACE

by

the Medicine Hat School District #76 (May, 1990)

The Medicine Hat Model for Teacher Supervision and Evaluation is a collaborative process of teachers and administrators working together to improve the effectiveness of teaching practice and the quality of student learning. The Model is based upon the belief that all teachers in Medicine Hat School District #76 are motivated towards the ongoing improvement of instruction and the delivery of high quality educational experiences for each child. These teachers prefer to engage actively and thoughtfully in this improvement project.

The Medicine Hat Model incorporates Peer Coaching, Supervision and Evaluation activities. The most significant distinction for each of these activities is the purpose, type of reporting and relationships of those involved. Essentially the processes used to conference, gather data and provide feedback are the same in each activity. A handbook detailing the relationship that exists among each of these activities has been developed and is available from the system.

The Process of Supervision and Evaluation

Preamble

A sound and defensible system of teacher supervision is necessary if teachers are to remain in charge of their own professional growth and careers. The model for this project is based on a process of ongoing, supervisory cycles that consist of pre-conferences, observations and post-conferences. The active participation of the teacher in all stages of the process is fundamental to the success of the model.

It is assumed that where sound, ongoing supervisory cycles exist, then defensible and effective evaluations will result. Teacher evaluation is best performed when the teacher and evaluator work in an environment of trust, support and clearly defined procedures.

Ideal supervisory practices will be achieved when teachers involve themselves voluntarily in supervisory cycles with their peers for purposes of mutual professional development and improvement of instruction.

Procedures

There are four recognizable stages of a supervision cycle. These are the following:

1. The Pre-Conference

   The pre-conference is the formal manifestation of the belief that supervision is a process that starts with the teacher's agenda. Observation with data collection are most useful and legitimate when carried out with an understanding of the original intent as mutually defined by the teacher and the supervisor.

2. The Observation

   The second phase of supervision is for the collection of accurate, useful and meaningful data. In order for data to be meaningful and useful, it must provide information that the teacher needs to know.

   In addition, such data must accurately describe significant teacher and student behaviors as identified by the research regarding effective instructional practice.

3. Data Analysis and Interpretation

   To be effective information must be presented in a simple yet persuasive manner. The information must be meaningful to the teacher and the supervisor.

4. The Post-Conference

   The post-conference allows the teacher the opportunity to review the persuasive data presented by the supervisor. The supervisor's role is to assist the teacher in understanding and interpreting the data. The supervisor encourages the teacher to probe for greater insight, to affirm self-identified strengths and to identify new opportunities for risk-taking and growth.

   The teacher is "coached" by the supervisor to identify additional aspects of teaching that can be practiced, observed and analyzed.

When teachers are involved in consecutive cycles, adaptations of these stages occur. Firstly, discussion often occurs before the pre-conference to determine details such as time and place. These discussions are often informal, or simply become part of the ongoing dialogue between two colleagues. Secondly, if another cycle is to follow soon after the post-conference, then part of the post-conference in fact becomes the pre-conference for the next cycle.

This arrangement of teacher and supervisor working together in an environment of trust is truly a symbiotic relationship. Each member of the partnership grows in professional performance and stature. The resulting growth and change in teaching performance benefits students

The process of supervision is an ongoing rather than isolated activity. This is consistent with the research literature that describes how teachers strengthen their ability to provide high quality instruction to students. Evaluation practices will arise from these supervisory processes. While the end results will differ, the procedures will be the same.

Our Vision

We believe that sound supervision and evaluation practices are an integral part of the process by which teachers and administrators can work cooperatively towards improving the effectiveness of our teaching practices.

The Medicine Hat Model and our system culture reflect our way of doing things, by being based upon attitudes of openness, trust, and respect. We act in ways that demonstrate the value of all individuals and their contribution to our system, our pursuit of excellence, our commitment to partnerships, and our pride in and recognition of our successes.

The successful implementation of the Model for Teacher Supervision and Evaluation will help good teachers to become even better teachers. Ultimately, all of our students will benefit from this improved effectiveness.

Our Beliefs

We are good teachers.

We want to improve our teaching.

We are willing to assist each other to achieve this improvement.

We can work together in a spirit of trust and support.

By supporting each other in our quest for quality and growth in our school district, we will become the best that we can be.

Optimism

"Continuous practice, feedback and collegial relationships are essential to enable even highly motivated persons to bring additions to their teaching repertoire through professional action".

Now perhaps more so than ever before, this type of supportive model is needed to uphold the sincere efforts of teachers to deliver high quality instruction to students.

Concluding Statement

The Medicine Hat Model for Teacher Supervision and Evaluation Project is one of the priority commitments by Medicine Hat School District #76 towards promoting and fostering quality education. The Model has now evolved to be known as the Medicine Hat Coaching, Supervision and Evaluation Program.

The planned implementation, in an ongoing fashion over a long period of time, will ensure that the basic tenets of the Model are incorporated into the total culture of the system. By expecting, respecting, and empowering all educators in Medicine Hat School District #76 to perform in this truly professional manner, the children in our charge will be well served.

CHAPTER 1

INTRODUCTION

M. L. Greene

This report presents the story of a major innovative project undertaken by the Medicine Hat School District #76, a public school system in southern Alberta which employs approximately 370 teachers in Grades K - 12. The project is entitled "The Model for Teacher Supervision and Evaluation" and has come to be known locally as 'the Model' or simply as 'TS&E'. A description of the Model, prepared by those responsible for its inception and implementation, is presented as the Preface to this report. What follows is the culmination of three years of research and evaluative study of the Model. The report also incorporates important findings from interim evaluation reports prepared at the end of each of the first two years of the project.

The Model for Teacher Supervision and Evaluation

Information about the inception and evaluation of the Model, the purposes of the Model and the intentions of those who were primarily responsible for its development, was obtained mainly from three sources: 1) the research proposal prepared by the Medicine Hat School District, 2) a document prepared by the person who became the trainer for the Model (Townsend, 1987) and 3) lengthy formal interviews and frequent less formal discussions with the Model trainer and the three Central office administrators responsible for the implementation of the Model; that is, the Superintendent at the time the Model was implemented (now retired), the Assistant Superintendent at the time the Model was implemented (now Superintendent) and the Coordinator, Program Monitoring and Evaluation (now Assistant Superintendent, Program Services).

Brief History of the Model

Ten years ago, in 1977 - 78, 30 to 40 of the Medicine Hat School District administrators participated in an Outreach Program conducted by Dr. Jon Thorlacius of the University of Lethbridge, the purpose of which was to provide training and experience in clinical supervision processes. The expectation was that these administrators would continue to utilize the clinical supervision process in their supervisory and evaluative functions. Over the next seven years the frequency and quality of these practices depended almost entirely upon individual commitment and was sporadic at best.

During the 1984 - 85 school year, the District reviewed and revised its evaluation policies to ensure consistency with Alberta Education's Management and Finance Plan. Arising out of this review came a decision to develop and implement a model teacher supervision and evaluation training program for system personnel, school based administrators and teachers. In the spring of 1985, Dr. David Townsend, then employed by Alberta Education, was identified as an effective trainer and project consultant. At the June Administrators' Seminar, held at Cypress Hills, Saskatchewan, Dr. Townsend led participants through the proposed model and a discussion of the details of the project.

By September of 1985, the School District and the University of Lethbridge, Dr. Townsend's current employer, had established a working arrangement whereby Dr. Townsend would act as the trainer and project consultant for the Model for Teacher Supervision and Evaluation Project. The school district superintendent, Dr. Ken Sauer, in consultation with the District's Administrative Council, identified 11 teachers and administrators who had demonstrated interest in teacher supervision to serve as the Project Steering Committee. The schedule of sessions was developed, financial implications were addressed, Board approval was reaffirmed and the Model for Teacher Supervision and Evaluation was underway.

Purposes and Intentions of the Model

The purposes or goals of the Model are not specifically explicated on paper. Simply stated, the original intention was to develop and implement an evaluation system based on credible research and employing the practices of a collegial supervisory process grounded in the principles of clinical supervision. It is apparent from the documents and the interviews that improving the teacher evaluation system was the initial underlying goal of the Model. However, many other benefits were anticipated from the Model. Those purposes listed below have been paraphrased from interviews during the first year of the research/evaluation project with those persons responsible for initiating and implementing the Model. Thus the following appear to be the major goals of the Model for Teacher Supervision and Evaluation:

1) a defensible supervision and evaluation system

> . . . based on integrating the existing research and what we know about good teaching practice . . . if you asked teachers to describe how they were being evaluated they would describe a process that reflects the stages of the model: pre-conferencing, the observation and the post-conferencing . . . .

2) the development of a supportive, sharing 'culture'

> . . . teachers expressing more open feelings . . . being prepared to risk a bit and have other people in their classrooms . . . a lot of sharing going on . . . where people are more willing to share with each other and help each other recognize that everyone has their strengths and everyone has their weaknesses and we can work together to improve and do a better job and feel better about it as we are doing it.

3) more teacher observation

> . . . teachers being observed more frequently and the kind of material that goes into their files will be more positive, more objective and more related to what the teacher considers to be important; teachers will have greater involvement in and commitment to their own evaluations.

4) improved teachers' classroom behavior

> . . . teachers being more effective and feeling good about it.

5) students feeling more positive

> . . . they [students] will feel that the program being delivered to them is significant and meaningful . . . hopefully a change in student performance and student learning but that's difficult to do.

6) finally, perhaps, the "evolution of a profession".

Administrative Structure of the Model

The Model was implemented from 'the top' primarily to satisfy the needs of administrators and decision makers. That is not to say that the goals were simply administrative; there was clearly a strong desire to improve teaching, to involve teachers and to introduce a process that would be helpful to them. From the outset there was a strong concern with the well being and the effectiveness of the classroom teacher. Nevertheless the administrative structure initially was hierarchical, as illustrated in Figure 1 -1.

The superintendent is directly responsible for the Model and he in turn answers to the Board of Trustees. It was clear from the beginning that the commitment of the Board was seen to be a necessary component of the Model. The implementation of the Model was primarily the responsibility of the Superintendent and Project Director who worked very closely with the Project Trainer and with the Project Steering Committee, which was composed of representatives from various schools. Organizationally, from that point on the Model became a number of sub-groups organized by year of training, and subsequent to that level, by school, by self-selected organizational groups and so on.

The administrative structure presented in Figure 1-1 is consistent with practice during the first two to three years of the Model's operation. However, various changes occurred and continued to occur as school, department or interest-based groups of teachers and administrators assumed greater autonomy and responsibility. These developments are described particularly in Chapters 6 and 7.

Implementation of the Model

As stated earlier, a group of 30 to 40 administrators had attended an Administrators' Seminar in June of 1985, at which they received an introduction to the Model. These administrators plus department heads and administrators who had been unable to attend the June seminar became the A - B group of participants; each was paired with a teacher (the C

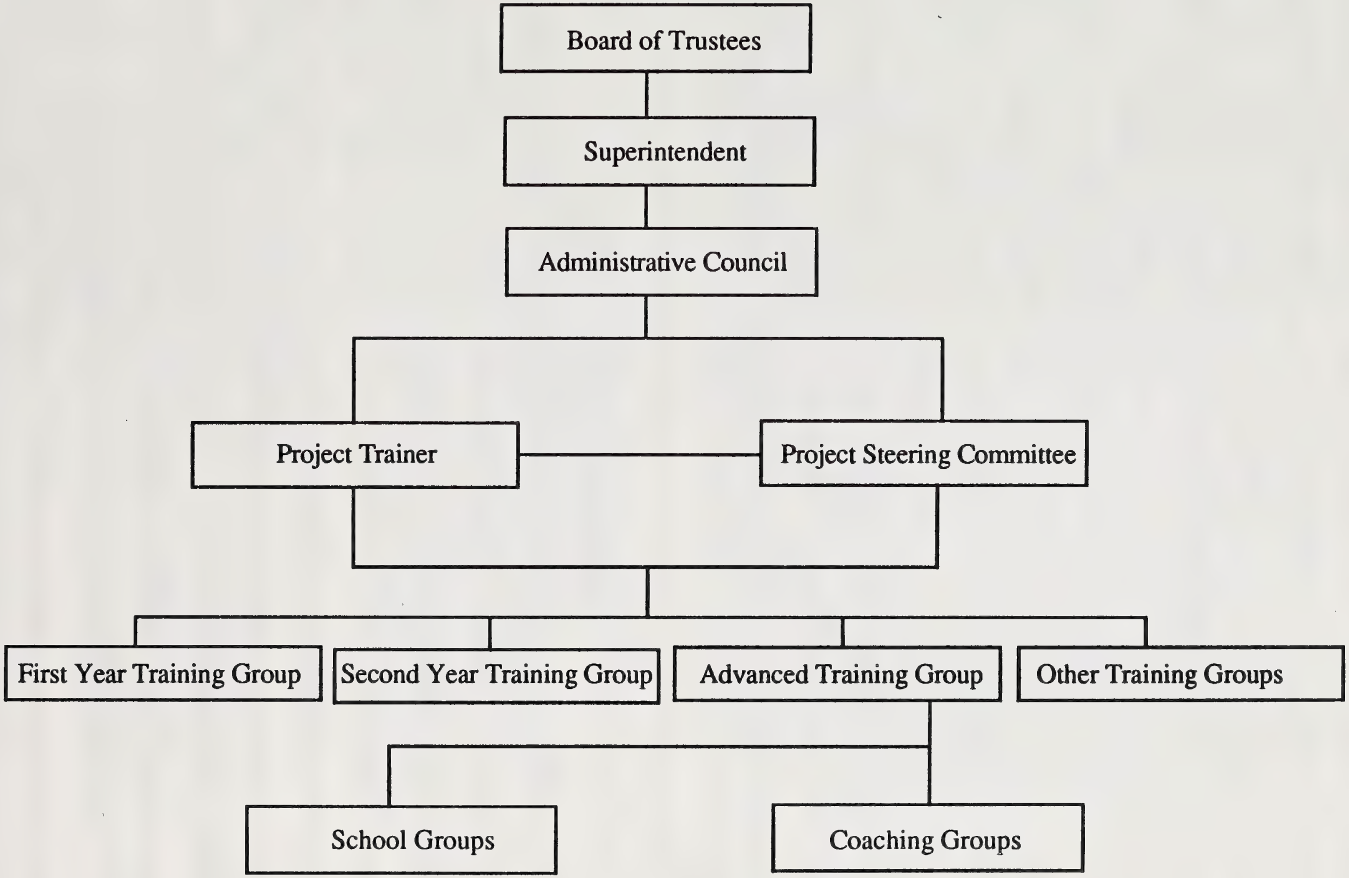

Figure 1-1: Administrative Structure of the Model for Teacher Supervision and Evaluation

- D participants), and that group of approximately 120 teachers and administrators began training in September of 1985 and became the Model's first participants. At the same time all teachers in the system were given a one-hour orientation to the Model and received a five page document addressing questions and describing procedures of the project. (All documents referred to in this report are available from the authors). A training schedule was established for the A - D groups, and the Model was officially launched.

In the Fall of 1986 a new E - F group of 50 teachers began their training with Dr. Townsend, who continued to provide the workshops for Model participants. In the Fall of 1987, 59 persons (the G - H groups) entered the project but the training was transferred to a group of teachers who became known as the Coaching Team. A final group of approximately 64 teachers (the I - J groups) began training with the Coaching Team in the Fall of 1988 making a total of about 290 teachers and administrators (approximately 80% of the District staff) who at the time of this writing have participated in the Model in some form.

The Research/Evaluation Project

In the Spring of 1986 the Medicine Hat School District #76 determined that it would be important and beneficial to conduct research on the Model and to receive evaluative feedback during its implementation. It was also recognized that considerable resources would be required to conduct an evaluation of a project of this magnitude. Accordingly Alberta Education was approached to provide funding for a three-year research/evaluation project. The research proposal was developed initially by Alberta Education and the Medicine Hat School District #76, and the University of Lethbridge Faculty of Education, in particular Dr. Myrna Greene, was approached to conduct the evaluation.

The Faculty of Education required that three conditions be met before accepting the project. First, since it would be impossible for one person to conduct a project of this magnitude, it was to be considered a Faculty project; that is, rather than hire all the personnel necessary to conduct the evaluation, as many faculty members as possible would become involved in the project. This approach was seen to provide substantial benefits to the school system, to the Faculty and to the research process. Secondly, although the design of the evaluation project had already been determined, it would be flexible enough to accommodate some variation and to accommodate credible research within the evaluation mandate; for example, many faculty members were concerned about the requirement to assess student achievement using standardized test scores and about the value of observing teachers for one class per year. They wished to expand the descriptive and qualitative aspects of the research/evaluation design since that was seen to be most important in describing the whole process of change. Finally, the evaluation was to be formative as well as summative; for example, rather than simply functioning as objective researchers uncontaminated by their participation in project activities and waiting until an end-of-year report to present results, the research teams might, when appropriate, present information to participants in a way that might be helpful to the Model. An additional stipulation of the Medicine Hat School District was that the research process not be allowed to 'drive' the implementation process; that is, if participation in the research project caused an individual to be hesitant about participating in the Model the person would not be included in the research project. All of these conditions were satisfied and the University of Lethbridge Faculty of Education was contracted to conduct the research/evaluation project.

Purposes of the Research/Evaluation Project

The contract negotiated between Alberta Education and the Medicine Hat School District #76, and subsequently modified slightly in consultation with the research/evaluation team, specified five main questions to be addressed during the three -year research/evaluation project. These were:

1) What is the effect of the Model for Teacher Supervision and Evaluation Project on measurable student achievement outcomes?

2) Does the Model for Teacher Supervision and Evaluation Project cause measurable changes in:

    a) teacher behavior?
    b) student behavior?

3) What measurable changes occur in supervisor and teacher conferencing behavior?

4) What are the implications of the change process as exemplified by the Model for Teacher Supervision and Evaluation Project?

    a) How was the implementation process perceived by project participants?
    b) What were the effects of the process on evaluation practices and policies?
    c) What are the implications of the change process and project outcomes for other school jurisdictions?

5) What are the relationships between student achievement and selected teacher and student behavioral measures?

Conducting the Research/Evaluation Project

To facilitate the conduct of the research/evaluation project, faculty members identified particular research questions in which they had an interest and some expertise. In this way, research teams were created. Each team was responsible for determining how the questions would be answered; however, the methods specified in the evaluation contract were to be part of the methodology for each team. For example, Question 2 addressed the impact of the Model on teacher and student behavior, and specified that teacher observations and observations of student time on task would be the major methods for addressing those questions. Thus, the team addressing Question 2 employed that methodology but had the option of adding procedures which they felt might provide additional insight to the study, and did in fact add other data collection procedures. This same process applied to all teams. Specific samples and methods employed for each question are described in Chapter 3. Personnel in the Medicine Hat School System cooperated fully in the research/evaluation project and provided liaison with school personnel. They negotiated entry into schools, arranged observations, videotaped conferences, ran interference, and in short, made the work of the research teams much more manageable.

Two committees guided the research process and facilitated coordination among teams and between teams and the school system. The first was an Advisory Committee consisting of the chairpersons of each of the research teams. This committee advised the research/evaluation project Coordinator and facilitated communication among researchers. The second was the Project Steering Committee, which included members of the Medicine Hat Administrative Offices, the school system and Alberta Education, the training leader and the research project director (see Appendix A).

Reporting Process

Each team was responsible each year for preparing draft reports and a progress report directed specifically toward the question(s) it was addressing. The project director edited all reports and compiled the final versions. Written interim reports were presented to the Medicine Hat School District at the end of each of the first two years of the project and this final report was presented at the end of the research/evaluation project. In addition, oral reports were made by the project director, often with the participation of other team members, on the following occasions:

- March/87, August/87 and June/88 to the Project Steering Committee
- September/87 and October/88 to the School Board
- December/86, October/87 and September/88 to the Research Sample, and
- October/88 to School Administrators.
- September/89 to the Project Steering Committee.

CHAPTER 2

THE SUPERVISORY PROCESS AS A MECHANISM FOR IMPLEMENTING CHANGE IN A SCHOOL DISTRICT: A REVIEW OF THE LITERATURE

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Through the 'Model of Teacher Supervision and Evaluation' the Medicine Hat School District #76 is attempting to enhance teachers' professional development. The central focus of the Model is the supervisory process, specifically a form of clinical supervision which is the vehicle by which growth is anticipated to occur. The Medicine Hat School District's support of the specific Model is in part due to an attempt to ensure, as strongly as possible, that barriers to teacher-directed change are significantly reduced and that everything possible is done to facilitate teacher growth. Nevertheless, any emphasis on a particular project such as this Model, with a concomitant injection of significant resources into the system, constitutes a major ripple in the system's operation and significantly impacts the lives of all persons in that system. In that sense the Model is a deliberate introduction of change and innovation. The purpose of this chapter is to review three facets of the literature: 1) the research on change and innovation as it applies to educational environments, 2) the literature on supervision as a mechanism for change, and 3) the literature on evaluating change in educational environments. All reviews are necessarily selective rather than comprehensive.

Change in Educational Environments

> Born often under another sky, placed in the middle of an always moving scene, himself driven by the irresistible torrent which draws all about him [the American] has no time to tie himself to anything, he grows accustomed only to change, and ends by regarding it as the natural state of man. He feels the need of it, more he loves it; for the instability, instead of meaning disaster to him, seems to give birth only to miracles all about him.

These words, written by Alexis de Tocqueville and quoted by Bridges (1986), might have been written yesterday, although they were written 150 years ago. Bridges continues: ". . . the status quo was no more than the temporary product of past changes, and it was the *resistance to change* that demanded an explanation" (p.24). There are many assumptions, factors and facts involved in the study of the complex processes of educational change. Alvin Toffler (1970) in his provocative book *Future Shock* writes:

> Every society has its own characteristic attitudes toward the past, present, and future. This time-bias, formed in response to the rate of change is one of the least noticed yet most powerful determinants of social behavior, and it is clearly reflected in the way society prepares its young for adulthood (p. 339).

Indeed, an understanding of change as an influential determiner of social behavior should be of critical concern and importance to a society in general and to educational communities in particular in their clearly mandated role as a preparatory agency for society's youth. Toffler simply underlines the belief that the only real constant in life is change.

Koberg (1986) examines this dichotomy rooted in the perception of stability and flux and notes that change is occurring in the environments of educational organizations with an accelerated degree of rapidity; this escalation has been particularly noticeable since the 1960s (p. 139). In response to perceptions of accelerated change there has been a reactive pendulum-like process of adjustment and/or adaptation. Koberg indicates that this process of action-reaction within educational environments involves the interplay between basic structural and functional components of the educational system. She identifies these components as: 1) procedures, 2) personnel, 3) processes, and 4) strategies.

Koberg's basic premise is that adaptation to change that is ever-present and ever-increasing must become a prime theoretical and operational concern for those involved with education. Often it is the reaction to change that brings to conscious awareness the exactness and magnitude of the effects and consequences of change. However, it is not always reasonable to be at the mercy of a reactive knee-jerk process. Koberg suggests that the adaptive/adoptive organizational behavior of schools and school districts may be strongly influenced by perceptions of environmental uncertainty due to the subtle undercurrents of change, and that the concept of adaptiveness is a factor critical to organizational performance.

Issues that revolve around the educational participants' perceptions of change, as well as adaptive and adoptive behaviors to cope with such perceptions, and the role of educational structures in the change process are the focus of Butt's (1984) paper. Specifically, Butt discusses curriculum change and/or innovation and states emphatically that the successful change is related directly to the nature of the relationship between teachers (insiders) and outsiders such as reformers, external consultants and senior administrative supervisors. History seems to indicate that in the past this relationship has been vertical, wherein the 'expert' designs and delegates to the reactor-responder-teacher. History also indicates that often the hoped-for successes were never really attained and frequently the blame for failure was assigned to the teacher because of alleged deficiency of skills. The outsiders' reaction to charges regarding innovation failures was to attempt to strengthen the perceived inadequacies of the 'weak-link' teachers, and a serious mode of inservicing was instituted. However, as Butt notes, teachers continued to react with resistance now specifically directed to such inservicing. In many cases the failure of change/innovation was not due to defects in teacher skills, but rather to an unwillingness by teachers to experiment with or to utilize outsider-directed innovations. Butt sees as a more reasonable reaction to teacher resistance the practice now occurring in several school districts toward promoting teacher stakeholdership or ownership of action research experiments in both curriculum innovation and in supervision.

Butt (1985) believes that this practice should be fostered through a dialectic approach: "In human terms, reformers and teachers might together examine and discuss the potential of a particular teacher's situation" (p. 13), or through a problematic approach:

> In human terms the problematic approach might involve a group of teachers and others working together to examine problems in their own practical arena. Through an examination of what they wish to do, they bring about increases in self-awareness, an appraisal of personal purpose, and situation-dependent, problem-oriented action (p. 14).

However, given the realities of most classroom situations these kinds of insider-outsider relationships, although increasingly more influential and powerful than many suspect, are very difficult to establish. In this age of accountability the teacher is even more dependent upon outsider decisions that structure time and resources, and establish 'frame of reference' rules of educational existence. Nevertheless, Butt (1984) indicates that if teachers are truly to be involved and engaged in change and action research they must have a commitment to a systematic analysis of their own pedagogy, a commitment to and the skills for study of this pedagogy, and the desire to test theory in practice. Butt calls for a re-thinking of current methodology of teacher supervision to reflect a more democratic, egalitarian, horizontal relationship between insiders and outsiders, between realities and dreams, and between practices and theories.

In summary, Toffler brings to our consciousness both the subliminal as well as the overtly confrontational qualities of change as a powerful determinant of our social behavior. He seems to be calling for awareness as the first step in an understanding of and eventual access to knowledge and use of specific change processes. Koberg focuses this stability-flux dichotomy by directing it specifically to educational environments. She notes that it is our basic perceptions of an increasing awareness of change around us that must be dealt with within the confines of the organizational mechanisms operational in the educational system. Butt calls for a re-addressing of the realities of the change process by concentrating on the participants involved. He believes that providing credibility to the human actors in the process may begin to bridge some of the gaps between insiders' realities and practices as opposed to outsiders' dreams and theories.

Major Studies of Change in Educational Environments

There are several exemplary studies that provide a flavor of the basic understandings and insights that may be gleaned from research into the change process in educational settings. Two of these have been selected for inclusion in this review.

The RAND Study

A landmark study regarding change is the RAND Change Agent Study initiated in 1973 and concluded in 1977 (Berman & McLaughlin, 1974, cited in Hall & Hord, 1987). This study examined four American federal 'change agent programs' which were established to provide startup or continuation funds to school districts involved in various educational innovations. The results of the study seem to indicate that for the most part the process of educational change through new practices is generally supported in most school districts. However, there is usually an adaptation process whereby the outside change initiative must be moulded to local conditions, and it must become an integral part of the organizational flow of the target school or district. Essentially, the study points to the need for a sense of ownership by participants. The essence of the RAND study is that change is primarily a series of events moving from the initial stages of initiation and securing of support to implementation through a confirmation process rooted in 'mutual adaptation'.

The researchers identified four clusters of factors considered to be crucial to the success of local change efforts: 1) the organizational climate before and during introduction of the change, 2) the motivational factors to enhance acceptance and continued participation in the innovation, 3) implementation strategies designed for smooth transitions of the innovation, and 4) the scope of the change or innovation. Leadership was a vital factor, particularly at the school level. If the principal were perceived as a participant and active in supporting the activities, then goals were usually achieved, student performance generally improved and as a whole the change project created an atmosphere of progress and accomplishment. A supportive central office was also required to convey the message that the project was worth the effort. Nevertheless, Berman and McLaughlin concluded that a major factor in the implementation and continuation of change efforts was teacher participation in decision-making, that it was important for teachers to believe that the project was 'theirs'. Two activities which enhanced this perception were local materials development and regular project meetings which conveyed the feelings to teachers that their professional judgement was valued and promoted a sense of ownership and commitment.

DESSI Study

DESSI (Dissemination Efforts Supporting School Improvement) was a three year study of American federal and state educational funding programs (cited in Grimmett, 1987). Basically, the study secured data regarding local improvement or change programs from 146 schools in ten states through questionnaires and interviews, and specific case studies of 12 of these schools. The results of the DESSI study suggest that teacher commitment is *not* essential prior to implementation, but that it follows from action. The role of the central office is seen to be important because district personnel provide "enforced, stabilized use" of the program (cited in Grimmett, 1987, p. 6). A central office initiative is promoted and demonstrated to participants through the services of a "highly credible, charismatic practitioner" (p. 7). Through a process of district decision-making, intense assistance, and successive successes, teachers develop commitment and a sense of ownership.

In summary, the DESSI study illustrates the fact that success breeds success. However, the spark to initiate the cycle is deeply rooted in a cause-effect logic inherent in the change process. It also requires a delicately balanced interaction between the specific situational conditions and the specific participants. The RAND study indicates the existence of a stage driven process. However, this process requires a facilitator, primarily the supporting principal, and a system of give and take referred to as mutual adaptation in order to set the stage for the change process to be alive and life-giving, or at least symbiotic.

Models of Change

Some researchers have gone beyond the stage of gathering data regarding how change has occurred and have generated models of how they believe change does and should function. Rather than being simply reactive or at the mercy of seemingly haphazard chance they suggest a methodological course to initiate and effectively guide change and innovation. Many of these models are described by Hall and Hord (1987) and it is their interpretations that form the basis for the following brief descriptions.

Social Interaction Models

The social interaction models of change operate from the assumption that the change or innovation to be adapted is fully, operationally developed and simply requires implementation. The emphasis is on understanding the process in terms of the adopters' decisions regarding the use of the innovation in their specific system. Five adoption phases are highlighted by Hall and Hord (1987): 1) awareness of the innovation, 2) interest in securing additional information regarding the innovation, 3) evaluation decisions to utilize the innovation, 4) trial periods to test the innovation, and finally, 5) adoption of the innovation. However, the steps in the process may be terminated at any time with a decision to reject the innovation in terms of its theoretical or operational workings.

The change agent or facilitator has a high profile during the seeking of information by the clients during the discovery phases, but this helping role becomes severely restricted when the decision is made to engage in the innovation. It is not so much a question of individual importance as it is an emphasis upon the adopters' perceptions and the information they are receiving.

Research, Development, and Diffusion Model

This model is based on a belief that change is an orderly, planned sequence of events and is rooted in five assumptions:

> (1) there is a rational sequence -- research, development, packaging, dissemination -- for evolving and applying a new practice; (2) there is large-scale, lengthy planning; (3) there is a division and coordination of labor

> directly related to the rational sequence and planning; (4) there is a passive but rational consumer who accepts and adopts the innovation; and (5) the expensive costs of development at the outset are acceptable because of the innovation's efficiency, quality, and suitability for mass dissemination and effective use (Hall & Hord, p. 33).

Change as defined in this model moves logically from problem to solution to dissemination, and many of the curriculum development projects of the 1960s were rooted in this perspective.

Problem-Solver Model

This perspective has its roots in the realm of human group dynamics, and involves the adopter collaboratively at all stages of the process. Five positions are advocated: 1) user needs must be given the utmost consideration and be the central focus for the change agent or facilitator, 2) diagnosing user needs is an integral part of the process, 3) facilitation by the change agent must be as non-directive as possible, 4) all internal resources should be fully used, and 5) ownership of innovations are the strongest when they are self-initiated and self-applied (Hall & Hord, p. 34).

The adopter of innovations must be involved at all levels and stages as collaboratively as possible. Hall and Hord believe that despite the fact that clients must engage in the process of defining, solving and implementing, this model also requires a consultant who must be present to offer training, support and whatever problem-solving skills the clients deem appropriate.

Organizational Development Model

The organizational development model is a variation of the problem-solving model. Initially proposed as a strategy for dealing with change rather than as a model per se, it is based on certain assumptions regarding change; it includes distinct components and it has some definite implications for how change should proceed.

Schmuck, Runkel, Arends and Arends (cited in Hall & Hord, 1987) note that the nature of the group is both the source of problems and the solutions to the problems specific to change management in educational settings. Therefore, the goal of the organizational development model is to bring these subsystems (groups of people as they manipulate resources, time, space and information) into effective, productive formations. In order to accomplish this goal the organizational development model stresses seven interdependent strategies to enhance the interpersonal skills of the group. These skills are:

> . . . clarifying communication, establishing goals, uncovering and working with conflict, improving group procedures in meetings, solving problems, making decisions, and assessing changes (Hall & Hord, p. 36).

Inherent within this vision is the position that improvement is automatically required because the state of affairs of general group operation can always be improved. In order for there to be improvement groups must work together in a more effective manner. The principal and consultants are valued assets in that they have an awareness of the group dynamic skills required to facilitate such improvement.

Linkage Model

This model is based on the concept that there must be an internal, or more likely external, linking agent or agency which operates in the information gaps between the creative source and client-users of the change or innovation:

> First, linking agents direct their actions at the improvement of individual or institutional performance. Second, they use knowledge or knowledge -based products and services as key instruments of improvement. Thirdly, in order to connect those engaged in change with ideas, findings, descriptions of practices, training materials and other needed knowledge -based products, they must perform boundary-spanning roles (Hall & Hord, p. 37).

The basic assumption is that users of an innovation exist in an environment different from the source of the innovation. Connections between the two realms is established and enhanced and often maintained through a linking agent. Collaboration is the goal, but it hinges upon the accessibility and knowledge the linker has with respect to the two distinct systems.

Concerns-Based Adoption Model (CBAM)

The major focus of Hall and Hord's book is their Concerns-Based Adoption Model. The central focuses of this model are that change facilitators are essential to the change process and that the facilitator's understanding of how teachers perceive their roles is specifically linked to adapting to the innovation proposed. Therefore, a key to the CBAM perspective is the importance placed on understanding the interactive concern processes involving facilitators, the teaching process and teachers.

The CBAM highlights the belief that change is a process. Hence, it is stage or level driven and the CBAM work regarding educational change is rooted in the following assumptions or assertions: 1) understanding the point of view of the participants in the change process is critical, 2) change is a process rather than an event, 3) it is possible to anticipate much that occurs during a change process, 4) innovations come in all sizes and shapes, 5) innovation and implementation are two sides of the change process coin, 6) to change something, someone has to change first, and 7) everyone can be a change facilitator (Hall & Hord, 1987, pp. 8-10).

In the Hall and Hord approach to the CBAM three basic components emerge. First are the Stages of Concern (SoC), based on the aforementioned assumptions, second is a focus on Levels of Use (LoU), and third is Innovation Configurations.

> The first set of CBAM concepts and recommendations [SoC] have to do with understanding the dynamics of teachers' perceptions of change, and with adjusting one's facilitating behaviors so that they address change from the teachers' point of view (p. 53).

Levels of use (LoU) focuses on the behaviors that are or are not taking place in relation to the innovation and are suggested as a technique for diagnosing, planning and monitoring the change process. The variety of forms that innovations took and the differences in the ways innovations were used led Hall and Hord to propose the concept of Innovation Configurations. They suggest that assessing and describing these configurations is important for designing staff development and for strategic planning. Hall and Hord propose a series of instruments and strategies for implementing, facilitating and assessing change based on these three major components.

Others such as Busco and Pipe (1989, Note 1) also suggest a five-stage model of change similar to the CBA Model. Pipe describes the role of the external change agent at each stage and suggests that in attempting any large-scale change where the intent is that ultimately everyone becomes a change agent, the two most important aspects are empathy and time. Pipe suggests further that change is like a marriage in that there must be a courtship and a number of stages to go through before there can be an enduring relationship.

Summary

A number of models of change have been described and proposed; however, the list is by no means exhaustive or inclusive. The social interaction model operates from a position that the specific change to be adopted is fully developed or is at least in the form of an end-product innovation; the emphasis is on questions of application. The research, development and diffusion model outlines an orderly, progressive and prescribed methodological process for implementation of an innovation. Research gives birth to a change concept, development nurtures, stimulates and bounds the actuality of the concept and the stork-like dissemination agency delivers the product to its target expectant clients. The problem-solver model brings to the surface notions of perceptions, collaboration and the belief that the situational participants in a phenomenon (teaching for example) should be the source and focus of change specific to the environment. The goal of the organizational development model is enhancing, through proper management techniques, the ability of structured, coordinated, existing groups to perform task-oriented functions. There is pressure in this model on the group to continually improve its effectiveness and efficiency. Decisions are group consensus directives. The linkage model defines change primarily in terms of connections. The success of the adoption of change rests primarily in the communicative power of the linking agent to make meaningful connections between the source and the user of an innovation. Finally, the concerns based adoption model stresses the importance of understanding change as a process and understanding the point of view of the participants at each stage of that process.

Leadership and Change

Recent literature, both academic research and the popular press, contains many references to the role of leaders in the change process. Particularly with respect to school change, the role of the principal has received considerable attention. However, we have few clear answers as to what the role of the leader should be. As stated by Jago (1982):

> Although thousands of empirical investigations of leaders have been conducted in the last 75 years, no clear and unequivocal understanding exists as to what distinguishes leaders from nonleaders and, perhaps more importantly, what distinguishes effective leaders from ineffective leaders. Multiple interpretations of leadership phenomena exist, each providing some insight into the role of leader but each remaining an incomplete and wholly inadequate explanation of complex relationships (p. 315).

General consensus from the research is that strong leadership is necessary to have superior schools -- schools that implement educational innovation. Most of the literature defines leadership as an interpersonal process that involves qualitative factors and skills (Jago, 1982). It also distinguishes between supervision and management functions to reinforce the fact that leadership is not appointed or delegated through status or authority. Conrath (1986) states that "there is no such thing as a position of leadership. Authority is positional and structural. Leadership is personal and behavioral" (p. 24).

Much of the literature focuses on the principal as the change agent and leader in specific school situations but a growing number of researchers are now recognizing that teachers, or outside facilitators of change, or a team that includes the principal can effectively initiate and maintain change (Purkey & Smith, 1985). Rallis (1988) argues that any school has a variety of leadership needs and that a principal's leadership should be complemented by enabling and empowering teachers to undertake leadership roles.

Traits/Styles of Leadership

While there may not be a consensus of the styles, skills, or behaviors required of educational reform leaders, researchers have identified certain traits or styles that appear to affect leadership ability. Conrath (1986) presents a generalized list of leadership behaviors that are included by many authors of leadership literature. He suggests that leaders demonstrate consistency, flexibility, creativity, knowledge, skills, a sense of purpose, compassion, clear priorities, integrity, and good listening (p. 24). These behaviors are then incorporated into five distinctive styles to represent a model of leadership.

Hord and Hall (1987) have also developed and described styles of change facilitators. They describe three styles: responder, manager, and initiator. Their Principal Teacher Interaction (PTI) study found a correlation between style and effectiveness in facilitating change and that this correlation increased from responder to manager to initiator styles (p. 55). Responder behavior was characterized by a "desire to please others and limited vision of how their school and staff should change in the future" (p. 66). Managers had rapport with teachers and central office staff and any change effort seemed to be linked to how well they understood and bought into a particular change. Initiators had "very strong beliefs about what good schools and teachers should be like and worked intensely to attain this vision" (p. 66). A key finding of the PTI study was the discovery that principals did not work alone in the change process. Hord and Hall discovered that a second change facilitator complemented the role of the principal in change facilitation.

Context of Leadership

How is leadership viewed? Most studies use a teacher's perspective to look at school leadership and the context is almost always in terms of principal effectiveness. Some authors such as Barth (1988), McEvoy (1987) and Rallis (1988) suggest that teachers and others should be sharing leadership within schools but few studies examine teacher leadership. Studies on the principal are available and some of these suggest that the principal cannot be a leader in all the areas expected in today's schools. Manasse (1985) indicates that leadership implies change and that a school needs leaders that have both "a vision of their schools and their roles in those schools" and "a vision of the change process itself" (p. 446). If leadership is viewed as attitude and belief rather than as skill and behavior then the arguments to separate management and curriculum supervision roles of principals evaporate. Rallis and Highsmith (1986) indicate that communication and motivation may be the 'visionary' elements required to bring about developmental leadership (pp. 302-3).

Blase (1987) developed an organizing framework of nine task-related factors and five consideration-related factors expected of effective leaders. These teacher perspectives were also found to be interrelated as well as being exhibited by each effective principal. The nine task-related factors are: 1) accessibility-availability; 2) consistency between behavior and decisions; 3) knowledge and expertise; 4) clear and reasonable expectations; 5) decisiveness; 6) goals/direction - to strive toward; 7) follow through -- accepting responsibility and providing resources; 8) ability to manage time efficiently; and 9) problem-solving orientation. The five consideration-related factors are: 1) support in confrontations/conflicts; 2) participation/consultation; 3) fairness/equitability; 4) recognition -- praise and reward; and 5) willingness to delegate authority (p. 594).

Principal as Change Agent

Most of the school leadership literature focusses on the principal as the primary change agent. Some authors such as Jenkins (1988) describe the principal as a leader of teachers in metaphorical terms that emphasize leadership as an aesthetic and intuitive process. He stresses that the role of the principal in educational leadership is to facilitate colleagueship and "to create a climate where values, power, accomplishments, and problems are shared" (p. 148). Brandt (1987) stresses the instructional leadership aspect of the principal through "high expectations, frequent monitoring of student progress, a positive learning climate and goal clarity" (p. 8) while recognizing the importance of the quality of relationships in the school.

Because of the demands on a principal's time and energy Davis (1988) describes an effective leader as "one who establishes clear goals while maintaining a global perspective on the activities of the organization" (p. 13). Wilson and Firestone (1987) suggest linkages to bring together attitudes and beliefs through the communication role (cultural linkage) and skills and behaviors through the supervision and evaluation role (bureaucratic linkage). This, he believes, will allow the principal "to develop a clear vision of the school's purposes to give primacy to instruction, and then employ it consistently" (p. 22).

Only one recent study was found that reflected a student's perspective on effective principals. Kojimoto (1987) reports that elementary students recognized principals that: 1) create and maintain a safe and orderly environment; 2) enhance students' self esteem, sense of responsibility, and ability to get along with others, and 3) help students grow academically (p. 70).

Partners in Change

Although the role of the leader has probably received the greatest attention in the literature on change in educational environments, it is perhaps the role of other participants -- most notably teachers -- that ultimately determines the success or failure of an innovation.

The Role of Teachers

Fullan (1982) states: "Educational change depends on what teachers do and think -- it's as simple and as complex as that " (p. 107). Therefore, the primary stakeholder in the change process must be the teacher. For Fullan the central issue appears to be a need to understand the subjective phenomenological world of the teacher. He suggests that the following questions are of interest in relation to teachers, change and the situational context: 1) Is change needed? 2) In whose interest is the change? 3) Are fellow teachers interested in change? Then there is the overriding consideration of the timeframe that binds these questions to the change.

Fullan believes that if educational change is to happen, teachers must participate and understand their roles in such a process. For this reason he reflects upon the difficulty and complexity of teaching and the lack of obvious tangible rewards. In fact, the introduction of a change often aggravates teachers' perceived time, resource and reward problems. Nevertheless, successful change may provide a glimmer of hope for the besieged teacher.

Past innovation failures may have resulted in part because of ignoring or minimizing the teacher's perspective. Often the concept of change has been oversold or oversimplified in order to promote it. As stated earlier, in the RAND Study, teacher participation in early decision-making was strongly correlated with teacher motivation and effective implementation of change. Teacher commitment can, however, result from training where there is a credible trainer who relates new practices directly to the classroom; commitment also often develops as a result of successful experiences (DESSI studies). The point seems to be that for teachers, change ". . . can only come about through a process of personal development in the context of socialization" (Fullan, 1982, p. 121). As Butt (1984) suggests, if we cannot truly understand the teachers' classroom reality, at the very least attempts must be made to recognize and respect their personal and professional stories because as front-line participants their commitment is essential.

Personal context then becomes an important starting point for teachers to begin conversing about the change process. Fullan is an advocate of the rewards of interaction in that there is satisfaction derived from the benefits of helping, getting help and sharing. Therefore, focused individual and group teacher interaction is essential to large scale district change implementation. If teachers are essential to the change process it should be part of their daily work; the focus then must be on the mechanics that make this possible. One significant focus is time, because schedules are the most dominating factor in most teachers' working lives. Also, time constraints are at the root of the sense of "presentism" in teaching which Lortie (1975) suggests leads to feelings of conservatism and isolationism, which impedes change. Fullan (1982) writes: "Change must be just as much a regular part of the job as is emphasis on routine" (p. 129).

The Role of Students

Fullan (1982) asks: "What would happen if students were treated as someone whose opinion mattered in implementing change?" He presents and explores four images of students: 1) indifference, 2) confusion, 3) temporary escape from boredom and 4) heightened interest and satisfaction. In an attempt to resolve this '"non-entity" problem, teachers as primary interactors with students must try to blend together educational curriculum and changes introduced through periodic discussions with the students (p. 158). This dialogue should entail aspects of the meanings of curriculum activities and this process should be a valued component of the curriculum.

The Role of Parents/Community

With respect to the parental stakeholder, Fullan's (1982) interpretation is that "the closer the parent is to the education of the child, the greater the impact on child development and educational achievement" (p. 193). The community has a valuable role to play in that it can: 1) supply pressure to change or to solve problems, 2) oppose innovations as initiated and/or attempted, and 3) simply be passive or apathetic thus allowing change to occur. Finally, Fullan provides advice to parents that hinges upon the bringing down of some of the philosophical and psychological barriers toward participation in educational change through the process of interaction (pp. 207-11). This interaction can occur through specific activities that bring parents and school people together for a specific purpose. Once parents and members of the school community move closer to the interactive level of an interrelated stakeholder group, changes to the educational environment become a cooperative process.

The Context of Change

Schools and school districts are complex bureaucratic social institutions which are not easily changed. Teachers have authority and autonomy within their own classrooms but collaboration on a school-wide basis is exceedingly difficult and time-consuming. The difficulties of introducing change into a

> . . . role that is already considerably overextended, largely devoid of specialized expertise, non-collaborative, labour-intensive, technologically bereft, and largely without access to adequate structures and procedures for career growth and professional development over time . . .

is well documented by Howey (1983, p. 2). Moreover, Flanders (1980), in an excellent and highly publicized study of British Columbia teachers' professional development activities, indicated that teachers believed the best possible professional development would be one-on-one with an experienced, sympathetic colleague but that their reality was one of relentless time pressure, cellular isolation, an information and administrative blitz, a network of unrealistic expectations and the demanding mental effort of teaching (paraphrased from pp. 7 - 10). Flanders refers also to the "diversity of teacher meanings" and the struggles of being caught in the middle of an emerging culture and increasing control measures.

Townsend (1987) suggests that there are often gaps between the theoretical design of an implementation at the jurisdictional level and the practical situational application at the school level. He identifies numerous situational factors that may directly influence the success of change implementation, such as: 1) the exactness of the roles each participant must play in the process, 2) the perceptional dichotomies inherent in participants' suspicious questioning of what is stated versus what is intended, 3) the always present and widening gap between intention and practice as the process evolves, 4) the degree of understanding and commitment of major stakeholders to the concepts involved in the change process, 5) the persistent boundaries of time and resources especially significant at the implementation stage, 6) the actual methods used to implement, and 7) the quality and quantity of resources committed to training. Teachers involved in the process are at different and unique levels of growth and concern; thus trust becomes a critical aspect of the process. Further, change is a growth process which will continue long after the critical focuses may have been satisfied; this growth should and must be recognized and supported by both formal and informal methods.

Hall (1988) believes that there must be a strong attempt to study and define specific situational elements in order to hope to introduce change and school improvement. A difficulty with this approach is that each situation has its own determiners and constraints, and thus each innovation becomes situation specific. Nevertheless, Hall offers a template for a basic improvement model cycle: 1) form a discovery team, 2) conduct a needs assessment, 3) select strategies, 4) develop a plan, 5) implement the plan, and 6) monitor and assess (p. 2).

However, Clark (cited in Hall, 1988) describes a more creative process that requires time, administrative support, extra-resource commitment, a strong tolerance for failure and an equally strong system of visible rewards for success. This is more of a 'muddle-through' approach that derives its strength from local generic variation.

Summary Statement

To summarize, the literature suggests that there are no absolutes to explain the experience of change within educational environments. The diversity of the literature presented regarding the theoretical and practical expression of change reinforces the premise that as change evolves from the reality of a situation it actually services that reality.

The literature supports the notion that change does occur, and is often very successful when success is defined by the system in which it occurs. Apparently, the success is due to a complex combination of elements that come together as part of a process. Each participant, regardless of status in the system, performs a binding function which enables the innovation to move in the direction of intent. However, interpretations about how this process actually occurs differ substantially. Various models of change have been proposed to explain and even to direct the process. Some models describe a vertical diffusion process in which the role occupied by an outside facilitator becomes essential. Other models of change advocate a tremendous flexibility or freedom and argue that change should be a grass-roots phenomenon which can be enhanced or facilitated by those with expertise or administrative power, but which is deeply entrenched in the realm of self-initiation and self-implementation. All of the studies and models of change indicate the people involved are central to the process of change in educational environments.

As with most people-oriented movements, history indicates that some form of leadership is essential. The degree of commitment by participants to the leadership, and the strength of commitment to the change are inextricably linked to the context of change and the perceptions of participants. Within educational contexts there has been a strong focus on the principal in a leadership role. Traditionally and administratively the principal shoulders responsibility for the operation of the school and is also often responsible for change implementation. Usually such leadership roles are thrust upon the principal as part of the job description. As yet there has not been a clear tapping into the delicate relationship between principal as facilitator of change and the participants' commitment to be facilitated. However, there is some indication that actual and even empathetic proximity to the classroom by administrators enhances the dialogue with the teachers which enhances the change process.

Senior district administrators, even further removed from the classroom, are as powerful as they are distant and also have a tremendous degree of influence in their farreaching decision-making potential. Thus, they too play a significant role in change implementation. As an upper rung in an otherwise relatively horizontal organization, perceptions of their leadership are extremely important in the change process. If district administrators can portray a position of commitment to school based participants, there is a strong chance for implementation success.

In most successful educational change, teacher ownership seems to be an overriding requirement. The role of the teacher may be: target of the innovation, implementor of a specifically designed change, or creative, self-directed action researcher. Ignoring or simplifying the realities of the teachers' working lives serves only to impede change. Rather, the focus of the change should be on empowering teachers. Maeroff (1988), in *A Blueprint for Empowering Teachers*, suggests that it is essential to understand how change and how teachers perceive change may be used to empower teachers. The three essential elements for this empowerment are: teacher status, teacher knowledge and teacher access to decision making; the vehicle to access each of these areas is already an established part of the teacher's environment. That vehicle is inservice education. Therefore, it is only when the goal of inservice education is the utilization of the knowledge of teachers, and only when inservice enhances teachers' recognition and status as professionals and people, and permits and encourages their participation in the decision making process, that there is potential for empowering teachers and for revitalized connections among teachers, principals, district administrators, parents and students.

The Supervisory Process as a Mechanism for Change

In the Medicine Hat School District #76 the particular innovation being implemented was the Model for Teacher Supervision and Evaluation; that is, the Model was seen to be the mechanism for change. The particular changes anticipated were in part specific (e.g., a change in the process and outcomes of teacher evaluation), in part developmental and long-term (e.g., improvement in teaching practices), and in part visionary (e.g., a collegial, community culture). Hence, the second part of this literature review focuses on the notion of teacher supervision and evaluation as a mechanism for change in a school district.

Approaches to Supervision

Supervision, according to *Webster's New Collegiate Dictionary* is "the deliberate, systematic and sustained effort to transmit, evoke, or acquire knowledge, attitudes, values, skills or sensibilities, as well as any outcomes of that effort" (p. 852). In a 1982 Yearbook of the Association for Supervision and Curriculum Development on the *Supervision of Teaching*, Sergiovanni (1982) suggests that there are many views of supervision -- primarily incorporated in the scientific, the artistic and the clinical approaches to supervision. Each of these is described very briefly.

The Scientific Approach

The scientific approach was based in the notion of the teaching effectiveness research as an underpinning to supervision; "Supervisors were to be familiar with the broad range of educational research and to use this knowledge in the appraisal, training, and improvement of teachers" (McNeil, cited in Sergiovanni, 1982, p. 19). This approach has had a limited impact on teaching practices and we appear to be at "another fin de siecle" (p. 18).

The Artistic Approach

Eisner (cited in Sergiovanni, 1982) suggests that the very word 'supervision' implies a hierarchical, prescriptive, and industrial connotation that is inconsistent with desirable educational practice. Further, he deplores the attempts to reduce educational practice "to a science". An artistic approach to supervision is one that:

> . . .relies on the sensitivity, perceptivity, and knowledge of the supervisor

> as a way of appreciating the significant subleties occurring in the classroom and that exploits the expressive, poetic, and often metaphorical potential of language to convey to teachers or to others whose decisions affect what goes on in schools, what has been observed (p. 59).

The human is the instrument that makes sense of what is going on and who must take into account the expressive character of what the teachers are saying and doing. The supervisor has two responsibilities -- that of appreciation (educational connoisseurship) and that of helping the other to appreciate what has transpired (educational criticism) through expressive or artistic use of language. Interpretation -- the process of making theoretical sense out of what one has seen and described -- is crucial to addressing questions of value and worth.

The Clinical Approach

In the clinical approach to supervision "the supervisor provides the practitioner with a service that is concerned with the quality of his/her practice" (Garman, cited in Sergiovanni, 1982, p. 35). The clinical supervision approach is rooted in the works of Cogan (1973) and Goldhammer (1969) and has evolved into the classic eight phase process known as the cycle of supervision: 1) establishing a relationship, 2) planning with the teacher, 3) planning for observation, 4) observing instruction, 5) analyzing the data from the observation, 6) planning for the conference, 7) the conference and 8) renewed planning -- thus the resumption of another cycle (Garman, p. 35).

However, Garman suggests that the actual practice of clinical supervision is defined more accurately by a number of concepts which, although not exclusive to clinical supervision, characterize and guide the clinical approach to supervision. These concepts are collegiality -- the posture of the persons who become involved, their state of being, their 'mental baggage'; collaboration -- the nature of the involvement of the persons during the supervisory alliance; skilled service -- competent accommodation and activities required by the supervisor as a result of prolonged and specialized training and practice; and ethical conduct -- constant discretion and judgement to maintain trust and protection (p. 38). Within each of these concepts there are, of course, ranges of behaviors and attitudes. For example, with respect to collegiality, one might be an alienated critic, a neutral observer, a connected participant, and so on.

> A person becomes a clinical supervisor when he/she begins to think and act as if the "cycle of supervision" were a metaphor as well as a method; when observation and analysis are not only procedural phases for actions in classrooms, but also represent the empirical approach inherent in a skilled service; when the notion of conference not only means two people meeting before and after classroom visits, but also suggests dynamic forms of collaboration in educational alliances; when the image of "cycle" not only guarantees repeated performance, but also refers to high levels of involvement and commitment that press participants toward the "connectedness" of collegiality; when the teacher-supervisor relationship stands for ethical conduct as it is lived out in important choices. The specificity of the method can inform us about the unbounding qualities of the metaphor (p. 52).

The clinical approach as envisaged by Garman is a process, a way of life, a cultural structure which might, with care, incorporate both scientific and artistic aspects of supervision.

Supervision as Staff Development

Concepts such as life-long learning, continuing education and staff evaluation for professional growth, underlie the growing acceptance of the notions of clinical and peer supervision and peer coaching as mechanisms for staff development. However, the concepts become confused in our thinking and we use, as if they were almost interchangeable, terms such as clinical supervision, peer supervision, peer coaching, staff development and inservice. Traditionally a supervisory relationship is a hierarchical one; a peer relationship is horizontal. Recent literature suggests a trend away from a supervisory relationship as a means for professional growth, toward professional development through colleagueship.

> The professional teacher has a strong desire for help, for involvement with other professionals, for feedback on instructional processes and outcomes,

> and for new ideas. While much is made of the importance of instructional supervision, the typical teacher sees little of it and what is available is frequently of limited use. When supervisory time is in short supply and when the interests and abilities of the supervisor are unrelated to the needs of the classroom teacher, it is not surprising that teachers turn elsewhere for help. One place they can turn is to colleagues . . . (Alfonso & Goldsberry, cited in Sergiovanni, 1982, p. 91).

For many, the concepts of 'teacher as supervisor', or conversely, 'supervisor as colleague', are difficult to accept; nevertheless the notions of peer or collegial supervision are attractive to many. Perhaps the issue is one of semantics, but the terms reflect a way of thinking; the concept of 'peer supervision' is contradictory. The concern of today's educators with teacher performance and evaluation suggests that many districts "will be lured into stringent patterns of 'inspection supervision' and thereby lose sight of the emerging development role needs of staff" (Snyder, 1981, p. 521). In an attempt to incorporate notions of collegiality -- a relationship characterized by collaborative efforts to accomplish common goals -- schools often "adapt a participative approach in the pursuit of predetermined objectives regardless of the appropriateness of these targets *as perceived by the teachers*" (Alfonso & Goldsberry, p. 95). Snyder (1981) suggests that clinical supervision holds more promise as a coaching system than as an inspection system.

The clinical supervision approach as described by Garman (1982) and as envisaged in the Medicine Hat School District Model, attempts to develop a process whereby teachers determine their own instructional goals and through a collegial (or supervisory) relationship work toward accomplishing those goals. One of the mechanisms for maximizing a collegial approach to professional development is through a structured system of observing the teaching methods, techniques and styles of other teachers (intervisitation). "When combined with post-observation conferences, intervisitation offers a potentially powerful avenue for teacher collaboration pertaining directly to classroom practice" (Alfonso & Goldsberry, p. 100). Thus a second component of the clinical supervision approach to staff development is conferencing. Kindsvatter and Wilen (1981) suggest that "of all the skills that contribute to a supervisor's effectiveness, none is more crucial than those relating to conducting conferences" (p. 525). They suggest further a Conference Category System to assist supervisors to develop effective conferencing skills. Thorlacius (1978) developed a Supervisor Teacher Analogous Category System for analyzing conferencing behaviors, which addresses both the role of the supervisor and the role of the teacher as equal partners in the conferencing process.

Fitzgerald (1989) suggests that an important, but perhaps neglected, aspect of clinical supervision is that it is self-confrontational -- "that clinical supervision is a powerful device for metacognition. . . . Metacognition is thinking about one's thinking. . . . applied to teaching it is frequently called 'reflective teaching' " (p. 13). He suggests further that a technique to foster the development of metacognition is the Johari Window, which represents "a different combination of what the teacher knows or does not know about his or her teaching as contrasted with what the supervisor knows and does not know about the teacher's teaching" (Sergiovani & Starrat, cited in Fitzgerald, 1989, p. 14). Fitzgerald describes the use of the Johari Window in his five stages of clinical supervision: focus, evidence, analysis, interaction and reciprocity.

In summary, the supervisory process, whether in the context of a supervisor-teacher, or peer relationship, appears to be an important mechanism for staff development, notwithstanding the difficulties and the issues discussed in earlier sections of this chapter. Three important components of the supervisory process in this context are intervisitations, conferencing and metacognition.

Empowerment Through Supervision

In an article in which she attempts to describe current theorizing in a maturing practice of clinical supervision, Holland (1988) suggests that Cogan's notions of clinical supervision reflect an empirical orientation. The purpose of clinical supervision as stated by Cogan, and cited by Holland is "the improvement of students' learning through the improvement of the teacher's instruction . . . [and], is part of a larger strategy to facilitate change in behavior" (p. 99). Holland suggests that these statements support a positivist/behaviorist or empirical orientation that "seeks behavioral change as evidence of particular treatments on research subjects" (p. 99). However, Holland suggests that this empirical view is tempered by Cogan's focussing on a developmental approach rather than on behavioral change. This interpretive perspective allows meaning to be developed out of the context of the relationship and the events of the cycle. Thus the teacher-supervisor relationship is dominated by an interpretive orientation. However, the emphasis in clinical supervision is on observable behaviors; Holland suggests that it is the role of data in clinical supervision which most strongly reflects an empirical orientation in which emphasis is placed upon collecting, systematically analyzing and using data of classroom events. Thus both empirical and interpretive approaches become integral to the clinical supervision process. "As an empirical approach to data collection and analysis is fundamental to Cogan's rationale, so an interpretive approach is fundamental to how the data and analyses are used in the post-observation conference phase of the cycle. Records of the data and analyses, according to Cogan, provide a 'foundation for the inference-play of the post observation conferences' " (p. 101). These records, then, become the basis for establishing and creating meaning and understanding in the post- observation conference. These meanings and understandings then lead to what Garman (1982) has called professional progress, in contrast to behavioral change.

Smyth (1988) in discussing a 'critical' perspective for clinical supervision, suggests that the original conception of supervision has "taken on many of the features of a sinister and sophisticated form of teacher surveillance and inspection" (p. 136). He cites examples of distortions of the intentions of clinical supervision, "by denying its empowering possibilities on spurious cost-benefit grounds while actively endorsing its potential as a way of evaluating teachers" (p. 136).

> What is really at stake here, then, is whether clinical supervision is a way of controlling, disenfranchising, and pushing teachers around, or whether it is an emancipatory process through which teachers are able to assist each

> other to gain control over their own professional lives and destinies (p. 139).

One of the major issues in promoting teacher empowerment is that of power and of unequal relationships. Smyth suggests that "where the possibilities for genuinely unconstrained communication are limited because of hierarchical relationships, it is not difficult to see how more democratic forms of learning can be thwarted" (p. 141). Smyth's solution for these difficulties is that we adopt a 'critical' view of supervision. By critical he does not mean negative, but refers rather to "the stance of enabling teachers to see their classroom actions in relation to the historical, social and cultural context in which their teaching is actually embedded" (p. 142). Smyth suggests that to have the kind of mutual understanding, trust and cooperation necessary for teachers to genuinely share each others' frameworks of meaning about teaching, those engaged in clinical supervision need to acknowledge what Habermas (cited in Smyth, 1988) has called the four norms of 'universal pragmatics':

> 1. To speak *comprehensively* so that other teachers can understand what is happening to them and the circumstances in which they work;
> 2. To speak *sincerely* so that statements are made in good faith with a genuine expression of the speaker's intentions, and without the listeners being manipulated or misled;
> 3. To speak *legitimately* so that others are able to see that unfair advantage is not being taken of positions or statuses;
> 4. To speak the *truth*, which amounts to asking whether communications are believable, whether the evidence supports them, or whether other accounts fit better (p. 144).

Smyth argues that a process such as this is a mechanism by which clinical supervision can be used by teachers to challenge and change the status quo, and a mechanism by which teachers can see themselves as change agents.

Evaluating Change in Educational Environments

"Evaluation is one of the most fundamental components of sound professional services. . . . Unfortunately, the extent of evaluation of professional services . . . has been at best uneven and, in general, poor" (Stufflebeam & Shinkfeld, 1984, pp. 1-2).

The issue of evaluating innovative programs or staff development efforts plagues researchers and practitioners alike.

> The truth is that very few, if any, programs have conclusive evidence of the impact of their efforts on changing teacher and other staff behavior or increasing student learning. One legitimate reason for this is that no appropriate and feasible methodology exists for exact tracking of these relationships on any large scale (Howey & Vaughan, 1983, p. 106).

In spite of the difficulties, evaluation research is becoming a major social industry and in the past decade a myriad of evaluation models and methods has been proposed. Figure 2-1 outlines a few of the more common approaches to program evaluation. Implicit in this figure are fundamental epistemological differences in the various approaches; these fundamental differences in approach suggest also a variety of methodologies. It has been our experience that traditional evaluation designs using pre-post measures, or attempting to relate outcome measures to established goals are at present not only impractical and unrealistic, but they minimize the complexity of the phenomena being examined. For example, increased student learning is generally the ultimate desired outcome of improvement initiatives, but our traditional measures of student learning (generally standardized achievement tests) at best tap the surface of student learning and at worst misrepresent it. Further, it has not yet been possible (nor is it likely ever to be possible) to establish a direct causal relationship between the implementation of 'large-scale' change and increased student learning. Data based on snap-shot assessments of the behaviors of a relatively large sample of teachers and/or students will be confounded by innumerable uncontrolled (or unrecognized) contextual and situational variables; large amounts of data based on depth assessments of smaller numbers of teachers and/or students and the context in which they work are subject to charges of situational specificity and impracticality.

Griffin (1983) suggests that the evaluation of innovations and staff development programs should be attentive to "three interacting phenomena: perceptions of participants, effects upon participants, and the apparent influence upon the organization" (p. 244). The most common form of evaluation tends to be assessing perceptions; this is valuable and

Focus of the Evaluation - "Advance Organizers"	Examples of Models	Brief Explanation	General Comments
Objectives Goals	Tyler Goal-Based	determine degree to which desired changes are taking place	pre-ordinate design; uses all techniques and procedures that provide evidence of behavioral changes; no assessment of the goals themselves; no standards
Intents-Outcomes-Standards	Stake (Countenance) Provus (Discrepancy) Popham, etc.	determining discrepancy between actual outcomes and some standard or criterion of acceptability	pre-ordinate; determine acceptable standards; measure outcomes by various means; determine discrepancy between outcomes and standards
Decisions	Stufflebeam (CIPP) Alkin, UCLA (CSE)	process of obtaining and providing useful information for judging decision alternatives	pre-ordinate; descriptions and judgments of contextual, design, implementation and outcome variables in relation to needed decisions and their associated criteria
Effects	Scriven (Goal-free)	examine all the effects of a program, whether intended or not - compare effects with profile of demonstrated needs	based on "logical analysis"; criminology analogy; relies heavily on evaluator competence
Concerns and Issues	Stake (Responsive) Wolf (Judicial, or Adversary) Guba (Naturalistic)	respond to the concerns and issues identifiedby various audiences - and provide information for decision making	emergent, responsive, expansionist methodology; identify issues and concerns of those involved with or affected by the program; collect any and all data relevant to the issues
Critical Guideposts	Eisner (connoiseurship)	program is penetratingly and publicly described and appraised - based on connoiseurship and criticism model	implicit design; evaluator as the evaluation instrument - functions as connoiseur and critic

Figure 2-1: Categories of Evaluation Models

Note: This scheme relies heavily on information provided by Guba and Wolf (personal communication) important information and its utility is immediately apparent. The most difficult evaluation issue is assessing the effects upon practice -- on teachers, students and other participants, primarily because we lack an appropriate methodology. Howey and Vaughn (1983) suggest, however, that we cannot wait until we develop these methods, and that in the interim judgements based on the experience of wise practitioners are rational and reasonable substitutes.

Clark (1988) suggests that "documentation has become a recognized mechanism for capturing the events that facilitate and hinder the accomplishments of major educational innovations" (p. 21). Documentation implies capturing, monitoring and recording the program components, processes and interactions as the program is implemented. It is essentially a "dynamic, evolutionary activity that provides for broad, continuous data collection . . ., data analysis, and feedback. . . . The primary goal is to help personnel in the innovating system become more reflective about the improvement process as it is occurring" (p. 22). Clark stresses that it is important in using such an evaluation approach to be methodologically eclectic and to employ a wide variety of data-collection methods including document review (such as proposals, minutes, correspondence), observations, interviews, site visits, surveys and questionnaires, demographic analyses, and reviews of student tests (p. 26).

Two Evaluation Examples

In spite of the difficulties of conducting meaningful evaluations of large-scale innovative projects, school districts continue to need information about their efforts and evaluations are conducted using the best methods currently available. Examples of two such evaluations follow.

In a large research study sponsored by the U. S. National Institute of Education data were obtained through 19 weeks of interviews, observations and document reviews, from several schools considered to be "successful" in implementing change. The researchers discovered several characteristics that appeared to distinguish the more successful from the less successful schools and we paraphrase at some length from their findings (Little, cited in Howey & Vaughan, 1983):

> First, successful schools were distinguished by certain kinds of work relationships among teachers and between teachers and administrators.
>
> a) Teachers engaged in frequent, continuous, and increasingly concrete and precise talk about teaching practice . . . . By such talk, teachers build up a shared language adequate to the complexity of teaching, capable of distinguishing one practice and its virtues from another, and capable of integrating large bodies of practice into distinct and sensible perspectives on the business of teaching.
>
> b) Teachers and administrators frequently observed teaching, and provided each other with useful . . . evaluations of their teaching.
>
> c) Teachers and administrators planned, designed, researched, evaluated, and prepared teaching materials together. The most prescient observations remain academic ('just theory') without the machinery to act on them. By joint work on materials, teachers and administrators share the considerable burden of development required by long-term improvement, confirm their emerging understanding of their approach, and make rising standards for their work attainable by them and by their students.
>
> d) Teachers and administrators teach each other the practice of teaching. In the most adaptable schools, most staff, at one time or another, on some topic or task, will be permitted and encouraged to play the role of instructor for others. In this way, the school makes maximum use of its own resources.
>
> Second, these work relationships were in certain powerful ways influenced by the perspectives and practices of the principal. . . .
>
> a) *Announcing and describing* expectations for collegial and experimental work, particularly at important occasions such as the first staff meeting at the beginning of the year, then frequently on various occasions thereafter to confirm and specify the desired interactions among teachers.
>
> b) *Modeling or enacting* the desired behavior, by asking staff for evaluation of the principal's performance, by providing useful, concrete observations of classes, by seeking out teachers to talk about practice, by contributing to the preparation of materials, by giving time while asking for time.
>
> c) *Sanctioning* the announced and modeled behavior in the allocation of resources such as released time, ...
>
> d) *Defending* the norms thus established from countermovements within

> the school and from impositions from outside the school, from parents, the district, and others.
>
> Third, district-sponsored programs of staff development have been most influential where they have combined a 'good idea' . . . with an approach that deliberately and consistently fosters precisely the kinds of staff working relationships described above (pp. 107-108).

In 1983 - 85 a school district in British Columbia, Canada introduced a project with many similarities to the Medicine Hat Model for Teacher Supervision and Evaluation. The primary objective of the district's plan was "to establish a network for peer coaching among both principals in the district and teachers within schools" (Grimmett, 1987, p. 4). A large-scale evaluation based on semi-structured interviews with one-half of the participants (*N* = 29) and an examination of documents, was conducted at the end of the second year of the project. The primary purposes of the study were "to investigate the extent to which district-level initiative can enable principals and teachers to work together as peer coaches . . . [and] to examine the specific roles played by district supervisors in implementing a peer-coaching network" (p. 5). The major finding resulting from this research was that:

> Principals and teachers generally acclaimed the benefits of peer coaching for their professional confidence, competence, and collegiality while also admitting that time constraints, peer incompatibility, professional threat, and interpersonal defensiveness had, in most cases, essentially rendered their participation in the peer-coaching process minimal (p. 11).

Only in one of the eight schools had peer coaching become a part of the participants' regular activities. The researcher identified several factors contributing to this phenomenon and suggested various implications of these factors: for example, although the role of the principal was considered to be critical for implementation "no clearly defined, specific role existed that principals as local, on-site project facilitators were expected to play" (p. 19); although the training provided by an external facilitator was seen to be one of the more effective initiatives there were few refresher workshops or follow-up activities; the project suffered at the school level from "a lack of substantive, technical assistance and support to principals and teachers" (p. 23); there was a need for "a strong emphasis on gathering information about the extent of implementation in classrooms, the factors affecting the implementation process, and the kinds of outcomes of student learning, teachers' attitudes, and skill development that the TET/peer-coaching program produces. Information on all three of these dimensions is essential for district planning where a school-based approach is encouraged" (p. 23). Grimmett concludes:

> The desirable mix to bring about school improvement seems to be one of decisive central office initiatives either in favor of specific programs or school-based staff development along problem-solving lines, together with ample provision of structured support and technical assistance for the program or process decided on by the district. . . . What is needed is top -down pressure and support for bottom-up involvement [and] . . . a perceptive sense of timing when to switch (pp. 27-28).

Summary Comment

This literature review has suggested that change is a natural state of the human condition but that explanations of the phenomenon continue to elude. Successful change in educational environments appears to be due to a complex combination of elements that come together in a particular context at a particular time. Flexibility, effective leadership and teacher ownership appear to be some of the required elements. Supervision as a mechanism for educational change, or staff development, as described by Garman (cited in Sergiovanni, 1982) and as envisaged by the Medicine Hat School District, is a process whereby teachers determine their own goals and through a collegial (or supervisory) relationship work toward those goals. Three important components of the process appear to be intervisitations, conferencing and metacognition, or critical reflection.

The evaluation of change in educational environments has been sporadic at best. The complexity of the phenomenon precludes the use of simplistic evaluation models or processes and identification of direct causal relationships; rather, methodological eclecticism and dynamic, evolutionary documentation and interpretation is required.

CHAPTER 3

RESEARCH/EVALUATION PROJECT DESIGN

M. L. Greene

Many of the research design features of the research/evaluation project were specified by the contract with Alberta Education. For example, the original sample size and configuration was predetermined as were specific data collection procedures such as once-a-year classroom observations and the collection of students' standardized achievement test scores. Specific details of the methods for each question and the changes made as the project progressed are described in this chapter for each research question. A general overview of the data collection procedures is presented in Figure 3-1.

Questions 1, 2 and 5: Effects on Teacher and Student Behaviors

The research sample and procedures for addressing Questions 1, 2 and 5 were similar and therefore are described together.

Research Sample

The sample for the major part of the research/evaluation project was determined in the initial proposal design in the summer of 1986 to consist of 70 teachers and administrators, 35 of whom were to begin their supervision training in the Fall of 1986; the other 35 had begun their training in the Fall of 1985. The 70 participants were selected by the Medicine Hat School District using the following criteria:

1) insofar as possible, teachers in grades 3, 6, 9 and 12 were selected in order that we would be able to collect provincial achievement data from these teachers' students;

2) teachers not in grades 3, 6, 9 or 12 were selected randomly from among those participating in the project;

3) no attempt was made to match teachers and administrators.

From the initial 70 teachers and administrators who were selected, 12 indicated their desire

TEACHER BEHAVIOR	Observations	Teachers in the Research Sample Observed Fall 86, 87, 88
	Interviews	Teachers in Research Sample Interviewed Fall 88
STUDENT OUTCOMES	Observations of At-Task Behavior	Students of Research Sample Teachers Observed Fall 86, 87, 88
	Perceptions of Classroom Climate Survey	Students in Grades 6, 9, & 12 Teachers in Grades 9 & 12 Administered Fall 86, 87
	Achievement Test Scores	Grades 3, 6 & 12 Fall 86, 87, 88
CONFERENCING BEHAVIOR	Videotapes of Supervisory Conferences	Research Sample Fall 86, 87, 88
PERCEPTIONS	Pre-Project Teachers and Administrators	Perceptions of Supervision & Eval. Administered Spring & Fall, 85
	Perceptions of the Model & District Policies - Surveys	Participants in Research Sample Administered Fall 86, 87, 88 Non-participants surveyed Spr. 88
	Stages of Concern Survey	Teachers in Research Sample Administered Fall 86, 87, 88
	Sense of Efficacy Survey	Teachers in Research Sample Administered Fall 86, 87, 88
IMPLEMENTATION & IMPACT OF CHANGE	Interviews	Project Administrators 86, 87, 88 Coaching Team 87, 88 Participants 88
	School Case Studies	Four Schools For Duration of Project Variety of Methods
	Pockets of Activity Case Studies	Six 'Pockets' Variety of Methods - Fall 88
	Informal Conversations	Various
	Analysis of Journals	Summaries of G-H & I-J Groups Coaching Team
	Informal Activities	Observations of Training Sessions Attendance at Meetings, Socials etc.

Figure 3-1: Data Collection Procedures

to not participate in the research project. It was determined early in the project that the research should not 'drive' the training project: thus there was no attempt made to coerce people to remain in the research sample if they indicated a preference not to participate. One teacher was added to the sample following the initial selection of 70 teachers; thus the final sample for the first year of the research project consisted of 59 participants. These are decribed in Table 3-1. Thirty-one of the participants (the A - D group) had begun the project in the Fall of 1985; these are identified as Year 1 participants; the 28 participants who began training in 1986 (the E - F group) are identified as Year 2 participants. Fifty-five percent of the A - D participants were administrators, whereas none of the E - F participants identified themselves as administrators. Also, an overwhelming percentage of the A - D participants were male, whereas 75 percent of the E - F participants were female.

During the second year of the research/evaluation project the makeup of the research sample changed somewhat. With the addition of a new group of participants in 1987 (G - H group) it was considered desirable to include them in the research/evaluation project. However, resources did not permit simply adding another group to the existing sample. Thus, initially, it was decided to select equal numbers of participants from each of the three years of the project to maintain the sample size at 60. However in the expectation that participants from year one were perhaps more likely to have left the system or dropped out of the project, 22 1985 participants, 20 1986 participants and 18 new participants were selected, for a total sample of 60. The 1987 participants, the G - H group, were selected randomly from the total list of new participants. The sample from the 1985 and 1986 groups were selected primarily to ensure the inclusion of most of the Grade 6, 9 and 12 teachers since those were the teachers for whom we had student achievement and classroom data. Beyond that consideration the participants were selected randomly. A few of those selected for the research project were unable to participate leaving a total sample for the second year of 54 participants.

The 1988 - 89 sample was smaller because of persons who had been transferred,

Table 3-1

Description of the Research Sample

	Training Groups						
	1985 (Group A - D)		1986 (Group E - F)		1987 (Group G - H)		Total
	N	%	N	%	N	%	N
By Year of Research							
Year 1: 86-87	31	52.5	28	47.5	--	--	59
Year 2: 87-88	22	40.7	14	25.9	18	33.3	54
Year 3: 88-89	14	37.8	8	21.6	15	40.5	37
By Sex							
Year 1 - Male	26	83.9	7	25.0	--	--	33
- Female	5	16.1	21	75.0	--	--	26
Year 2 - Male	21	95.5	5	35.7	9	50.0	35
- Female	1	4.5	9	64.3	9	50.0	19
Year 3 - Male	13	92.9	3	37.5	7	46.7	23
- Female	1	7.1	5	62.5	8	53.3	14
By Assignment							
Year 1							
- Princ. or VP	11	35.5	0	00.0	--	--	11
- Dept. Head	6	19.4	0	00.0	--	--	6
- Teacher	12	38.7	24	85.7	--	--	36
- Other (Interns)	2	6.4	4	14.3	--	--	6
Year 2							
- Princ. or VP	9	40.9	0	00.0	0	00.0	9
- Dept. Head	6	27.3	0	00.0	1	5.6	7
- Teacher	7	31.8	14	100.0	17	94.4	38
Year 3							
- Princ. or VP	8	57.1	1	12.5	--	0.0	9
- Dept. Head	3	21.4	--	0.0	--	0.0	3
- Teacher	3	21.4	7	87.5	15	100.0	25

retired, were on leave, or who requested not to participate for other reasons. A description of the main research sample by project year, by sex and by assignment is presented in Table 3-1. These groups of teachers and administrators formed the core of the research sample for the purposes of teacher observation and student observation (Question 2), student achievement (Questions 1 and 5), and for parts of Questions 3 and 4 (addressed later).

Measures

Teacher Observation Instruments. Copies of all instruments used in this study are available from the authors. In the selection of the instrument to be used for teacher observations a search of the literature on teacher observation instruments was conducted. A large number of instruments were reviewed and the related literature assessed. Those instruments selected for final indepth review included the *University of Alberta Observation Scale* (McKay, 1979), the *Georgia Department of Education Teacher Performance Assessment Instruments* (1985), the *Florida Assessment Instruments* (see Petersen et al., 1987), and the *University of Washington Teacher Assessment System* (1986). All of these have more similarities than differences. However, in the final analysis, the *University of Washington Teacher Assessment System* (UWTAS) appeared to be the most appropriate instrument for our purposes, for the following reasons: 1) It had a strong research basis; each of the items on the instrument has a documented and research-based rationale for inclusion. 2) It avoids the use of a Likert-type rating scale which has proven to cause considerable difficulties for observers and which tends to capitalize on measurement error. 3) The items in the UWTAS system were consistent with the perceived goals of the Medicine Hat training model. 4) A training program for trainers of observers was being offered by the University of Washington which agreed to train our trainers free of charge, and to make available to us videotapes, training materials and other necessary items. 5) The UWTAS system is based on the Georgia and Florida models and has incorporated the best of these systems and has improved upon them. It is also consistent with the models used in Alberta. 6) This instrument, while still tending to be a high-inference measure, is less so than many of the traditional rating scales; it seemed to offer the best compromise between the rigid, inflexible and sometimes too specific categories of very low inference systems and the highly subjective, unreliable scores obtained from very high inference systems. 7) There is a well-defined scoring procedure with which one can create profiles of teachers which can then be used to assess change.

The UWTAS instrument addresses three major categories of teacher activity: teacher planning, teachers' classroom behavior, and the professional development activities of teachers. For this study, only the central component of the instrument, that of teachers' classroom behavior, was used. This component identifies eight skill areas, each of which contains a number of 'indicators'; each indicator is followed by four behavioral descriptors. The eight skill areas are as follows:

- Organizes Instruction Effectively
- Uses Instructional Strategies and Resources Related to the Objectives
- Demonstrates Confidence When Teaching
- Communicates With Learners
- Reinforces and Encourages Learner Involvement in Instruction
- Exhibits Appropriate Interpersonal Behavior
- Uses Appropriate Evaluation Procedures
- Uses Appropriate Preventive Measures and/or Corrective Classroom Management Procedures

There are a total of 104 descriptors on this instrument, four for each of the 26 indicators under the eight skill areas. Teachers are rated in one of four categories for each of the 104 descriptors: a DE indicates that the behavior was demonstrated in an exemplary fashion; a D indicates that the behavior was demonstrated but could be improved upon; an O indicates that the behavior did not occur even though there was opportunity for it to occur, and an N indicates that there was no opportunity or necessity for this behavior to be present. A teacher score was created for each of the eight skill areas using the following formula, which results in a 'perfect' score of 1.00 for any one skill:

$$\frac{(1.5 * DE) + (1 * D)}{1.5 * (DE + D + 0)}$$

Student Observation Instruments. Research studies have shown that, particularly for the elementary grades, the time allocated to instruction and the time students are actively engaged in academic tasks, are significantly related to student achievement. For this study, the instrument used to assess students' at-task behavior was adapted from the work of *Research for Better Schools* (Helms, Graebner, Caldwell and Huitt, 1981), which in turn is based on a research study by Stallings and Kaskowitz (cited in Helms et al., 1981). Student engaged time may be defined as the amount of time students spend actively working in a subject area.

> Two factors affecting time-on-task are the actual amount of time provided to students for instruction in a subject area (called allocated time) and the percent of that allocated time in which students are actively involved in an assigned academic task (called engagement rate). . . . Monitoring time-on-task involves five steps: (1) collecting data on allocated time, (2) collecting data on engagement rate, (3) calculating time-on-task, (4) comparing classroom data to research findings, and (5) setting goals if improvement is desired (pp. 1-2).

The procedures described by the *Research for Better Schools* for observing the class and scoring the instrument were followed, resulting in a measure of allocated time and an engaged ratio for each class.

Measures of Classroom Environment. During the first two years of the research/evaluation project classroom environment was assessed by teachers and students in Grades 9 and 12 classrooms, and by students in Grade 6 classrooms. Two of the instruments selected for this process were from a package of instruments used extensively and validated primarily by Fraser and colleagues at Western Australia Institute of Technology (Fraser & Fisher, 1983). For Grades 9 and 12 students and their teachers the measure used was the ICEQ (Individualized Classroom Environment Questionnaire). This instrument assesses classroom dimensions which have been shown through research to distinguish individualized classrooms from conventional ones, and to account for appreciable amounts of variance in student learning outcomes. The instrument consists of 50 items rated on a 5-point scale. These items were scored according to established procedures, resulting in five measures of classroom environment; these are personalization, participation, independence, investigation and differentiation. For Grade 6 students the MCI (My Class Inventory) was used. The MCI is a simplified version of a classroom climate measure, suitable for use at the elementary and early junior high grade levels. This measure consists of 38 items rated on a yes/no basis and scored to result in five measures; these are cohesiveness, function, difficulty, satisfaction and competitiveness.

The Classroom Enrichment Index I and II (Ellis, 1983) was also administered to Grades 6, 9 and 12 students. There are two versions of this test: I for elementary and II for secondary students. Outcomes, or student benefits, identified by the Classroom Enrichment Index are those typically associated with enrichment and gifted programming, e.g., discovering new interests, being challenged to do one's best work, learning problem solving and creative thinking skills, experiencing a classroom climate wherein all ideas are valued and one feels safe to express ideas. Effective teaching may facilitate such student benefits although these outcomes may not be documented or evidenced by standardized achievement test results.

Because of the very few project-related findings from these instruments (described in Chapter 4) in relation to the high costs of their administration, these measures were not used during the final year of the project; rather, the additional resources were applied to areas in Question 4 considered likely to provide more fruitful information.

Student Achievement. The initial intent of the proposal was to collect standardized achievement data for all students of Grades 3, 6, 9 and 12 teachers from their scores on tests administered in October of 1986, for comparison with scores obtained during subsequent years of the project. The scores would be the Canadian Tests of Basic Skills, the provincial Achievement Tests and/or the Provincial Diploma exams. For the classes of teachers not in Grades 3, 6, 9 or 12 only a mean class score would be provided, based on the standardized test administrated by the school district. Scores were to be provided by the school district to the researchers. However, provincial achievement test results were seen to be inappropriate since tests were administered in different subject areas to different grades each year. Thus it was determined that the measures would be the CTBS and Diploma exams; this decision eliminated the Grade 9 classrooms from the sample since they did not write either of those tests.

The data were collected and analyzed with considerable difficulty and at some expense for each year of the project. In some cases where individual class lists were not obtained the data were in the form of class averages. In addition, although the teachers were always ones who were in the research sample, they were not necessarily the same teachers from year to year, since teaching assignments changed. Also, the students were not the same group from one year to the next and may have been with that teacher for only a brief part of their day. For all of these reasons it was considered inappropriate to present the results of the student achievement testing.

Procedures

Training of Observers. Eight observers were selected for the first year of teacher and student observations on the basis of group interviews with approximately 20 retired or non-teaching teachers in the Medicine Hat School District and from graduate students in the Master of Education program at the University of Lethbridge. They were trained over a five-day intensive training period by three faculty members who themselves had been trained by the developers of the UWTAS instrument being used to conduct the teacher observations. Training on the student assessment instrument was done by the faculty member who regularly trains teacher associates and student teachers to use this instrument. The training for both instruments consisted of analyzing videotapes, rating classrooms from an observation gallery and observing in actual classrooms. At each step of the process, percent of agreement among raters was calculated and there were discussions about areas of disagreement.

For the second year of the research, two of the previous year observers were asked to continue as observers in the project, and seven new observers were selected from among faculty and graduate students at the University of Lethbridge. Observers were trained over a one week period using videotapes, vignettes, gallery observations and in-class observation training sessions. The same nine observers were used for the third year of the project; thus retraining for the third year consisted of one and one-half days of classroom observations and ratings followed by discussion and analysis.

Inter-rater agreement for the teacher observations (the UWTAS instrument) was based on the percentage of agreement among all nine observers across the eight skill areas. There was no attempt to determine a 'correct' score; rather, the percentage of observers who had exactly the same rating for each item was calculated for each of the videotapes and for each of the five training classroom observations. For the first year, end-of-training inter-rater agreements on the UWTAS instrument in the final two classrooms observed were .69 and .71. Inter-rater agreements for the second year were .71 and .75 and for the third year were .67 and .82 in the final two training observations. While these figures may appear low, the method used to calculate agreement was a stringent one. Other observation studies have allowed one deviation on either side of a score to be considered agreement, thus raising agreement levels as high as 95 to 100 percent.

For the measure assessing student engaged time, the average ratio of engaged time for all observers was calculated for each observation, as was each observer's deviation from that average. During the first year final inter-rater agreements for the time-on-task were within five percent of the average engaged percentage. The average engaged time ranged from 69 percent to 80 percent in the various classrooms observed. In the second year of the research, during the two final training observations in actual classrooms where the average engaged ratios were .85 and .72, the standard deviations were .03 and .06 respectively across the nine observers. In the final year of research, for the final two training observations, average engaged ratios were .90 and .78, with standard deviations of .03 and .05 respectively.

Data Collection. Classroom observations were conducted in November and December of 1986, from October through December of 1987 and during October and November of 1988. Arrangements for observations were made by the Medicine Hat Administration Offices to inconvenience teachers as little as possible. The only stipulation made was that the teachers be actively teaching during the observation (e.g., that the class not be entirely seat work or test-taking) and that the observation occur in a subject area which was one of the teacher's primary responsibilities. Two trained observers visited the class for one full period; one rated teacher behavior, the other rated students' engaged behavior. As discussed earlier, although considerable student achievement data were collected and were presented in Interim reports, they are not discussed in this report.

Data Analysis

All numerical data were analyzed using the *SPSSx Statistical Package* (1986). Descriptive statistics -- primarily percentages, means and standard deviations -- were calculated to describe the results. Relationships between and among variables were analyzed primarily by means of correlations, *t*-tests and analysis of variance techniques, or non-parametric techniques where these were more appropriate. Where more sophisticated analyses were conducted these are explained in the respective results sections of this report. Qualitative data, such as interviews and write-in comments, were transcribed verbatim and analyzed descriptively.

Question 3: Supervisor and Teacher Conferencing Behaviors

The major method used to address the effect of the Model on teachers' and administrators' conferencing behaviors was the analysis of videotaped conferences.

Research Sample

The initial design of the research/evaluation project was to have had a sample of 50 supervisor tapes -- 25 in each year of the project -- selected from the tapes of the 59 participants in the original research sample (see Table 3-1). However, the tapes contained various combinations of supervisors and teachers in each of the years of the project and so in the first year only those conferences where the supervisor and the teacher were in the same year of training were included in the sample. This process excluded those conferences where one member was in the A - D group (those who began training in 1985) and the other in the E - F group (those who began training in 1986). This process resulted in a final sample of 31 supervisor/teacher post-observation conferences: 18 video conferences were of A - D participants, that is, those who began their training in 1985; 13 conferences were from E - F participants, those who joined the project in 1986.

For the second year the sample of videotapes consisted of 33 supervisor/teacher post-observation conferences. All 54 members of the research/evaluation project were invited and encouraged to videotape a supervisor/teacher conference and to submit it for analysis. Thirty-three (61%) of the 54 possible participants submitted tapes. The tapes were divided into the three groups on the basis of the group membership of the supervisor. The three groups consisted of Group A - D, with 14 conferences, Group E - F, with nine conferences and Group G - H, with 10 conferences. Group A - D joined the project in 1985 and were in their third year of training. Group E - F were in their second year and Group G - H were in their first year of training.

For the final evaluation year there were 13 videotapes of supervisor/teacher post-conferences. This represented 35 percent of the possible sample. The 37 members of the research sample were encouraged to videotape a pre and post-observation conference. We requested that the members of the research sample be in the role of supervisor on the videotapes submitted. Fifteen tapes were submitted but the supervisors in two of the videotapes were not members of the research sample and so these tapes were not included in the analysis.

Measures

The instrument selected for use in analyzing the supervisor/teacher post-observation conferencing behavior was the 'Supervisor-Teacher Analogous Categories System' (STACS) (Thorlacius, 1978). This system was selected because of its focus on the behavior of the teacher and the supervisor as equal participants in the supervisory conference. It was developed for use in analyzing conferences that use the clinical supervision model. The STACS system consists of 19 categories of conferencing behavior, the first nine of which focus on supervisor behavior; nine identical categories (11-19) focus on teacher behavior. The middle category (#10) is designated silence or confusion.

Procedures

Data Collection. In October of 1986 participants in the project were videotaped in a pre-observation conference and the follow up post-conference. Each pre-observation conference was viewed prior to coding the corresponding post-observation conference. The videotapes were coded using the STACS. The coding was recorded using a computerized 'Timed Interval Categorical Observation Recorder' (TICOR). TICOR (Wadham, Note 2) allows for the coding of a conference directly from a videotape to a computer. This provides interval data subject to the accuracy of the coder. The TICOR system provides for user-defined categories facilitating the use of the STACS.

In October of 1987 participants in the project were videotaped in a pre-observation conference and the follow up post-observation conference. The videotapes were coded using timeline coding sheets. This was a change from the coding procedure of the previous year. The Timed Interval Categorical Observation Recorders (TICOR) used the first year to record data were initially tested and were recording appropriately.

Approximately one-half of the videotapes were coded on TICOR and were then transmitted to the mainframe computer. When the data were retrieved for analysis it was noted that there were irregularities. It was discovered that there were random errors introduced into the data because of an electronic malfunction. Since we were unable to correct this situation it was decided to code the conferences by hand using the timeline coding sheets. The summative data from each video conference were entered into the computer. It was also necessary to recode the videotapes that had already been coded using TICOR. Recorders were also asked to list the topics discussed during the conferences in order to get a sense of the teaching behaviors on which participants were focusing.

In the final year of the project the procedure was the same as the second year. The participants were videotaped in a pre-observation conference. The videotapes were coded using timeline coding sheets. The data for each post-conference were summarized and entered into the computer.

Training of Coders. Four coders were selected to observe the videotapes of the pre and post-observation conferences and to code the post-observation conferences using 'STACS'. The coding was done on TICOR. Two of the coders had been involved with course work in supervision which had STACS as a major component. The other two coders had not previously had training using STACS. One had had some exposure to the system and the other, a research assistant to the Medicine Hat Project, had no previous knowledge of the system.

The coders were trained by the developer of STACS in eight sessions of three hours each. The initial sessions focused on learning the 19 STACS categories using training tapes and transcriptions of supervisory conferences. When the coders reached proficiency at manually coding the training tapes they were introduced to coding on the TICOR. The coders then coded the training tapes using TICOR to record the data. This allowed them to become proficient in using the hardware on conferences with which they were already familiar. When proficiency was obtained using the training tapes they were then introduced to unfamiliar videotapes of conferences until coding accuracy reached an acceptable level. The acceptable level of accuracy was measured using Scott's Coefficient of Reliability . Scott's Coefficient is an index of inter-rater agreement and intra-rater reliability with corrections for chance factors when using a category system of data collections (Scott, 1955, pp. 321-325).

During the second year three coders were selected to observe the videotapes of the pre- and post-conferences using STACS. The coding was done on the timeline coding sheets. All three of the coders had been involved in the project as coders the previous year. In order to bring coding skills back to an acceptable level they spent three 3-hour training sessions on the TICOR. When the TICOR was discarded it took one additional 3-hour session to achieve an acceptable level of reliability using the timeline coding sheets. The measure of reliability used was again the Scott's Coefficient.

For the third year, a three hour training session involving the three coders from the previous year was conducted. The required level of reliability was not reached. After a second coding session two of the coders reached the desired level of reliability. Since the number of videotapes to be coded was small only two coders were used.

Data Analysis

For each of the conferences the duration of time for each of the 19 STACS categories that occurred during a given conference was tallied. The data were then pooled for the various groupings to yield total duration of time for each category of behaviour. These pooled values for the total group in the final year of the research/evaluation project were compared to an untrained group using a t-test. The data for the untrained group were obtained from the research conducted previously by Keir (1981). The conferences of the total group of participants in 1987-88 were compared to the conferences of the total group in 1988-89 also using a t-test. The results of those participants who completed conferences each of the three years of the research/evaluation project were compared using a repeated measures ANOVA to test for differences over time.

Question 4: The Change Process

This question proved to be the most comprehensive of all of the research questions and a wide variety of quantitative and qualitative methods was used to collect as much information as possible to describe the implications of the change process as exemplified by the Model for Teacher Supervision and Evaluation, on the Medicine Hat School District.

Pre-Project Information

Prior to the beginning of the training project and a full year before the implementation of the research/evaluation project, surveys had been administered to all the teachers and administrators in the Medicine Hat School System. The first of these was an 11 item survey developed by system administrators and administered to all teachers and administrators in the system (*N* = 281 respondents) in the Fall of 1985, to assess opinions about supervision and evaluation practices.

A second survey consisting of 37 items, was designed to discover perceptions about strategies appropriate for, and used by evaluators. It was administered to system administrators in June or September of 1985 (*N* = 102 respondents). The third survey was developed by the project trainer and was administered to the first training group (*N* = 59) in October of 1985. It consisted of nine statements and was designed to examine perceived differences between existing and ideal supervisory practices. Although these data were not initially collected as part of the research/evaluation project it was felt that they could provide useful information about the change process.

Interviews

Interviews formed the 'backbone' of the methodology for Question 4. In addition to the many interviews conducted as part of the case studies and 'pockets of activity' (discussed later) 17 interviews were conducted with a number of persons throughout the three years of the research/evaluation project. Eleven taped interviews were conducted with Central Office administrators responsible for the implementation of the Model: one with the District Superintendent (now retired), five with the Assistant Superintendent (now the Superintendent) and five with the Project Coordinator. The remaining six interviews were conducted during the second and third years with members of the Coaching Team. All interviews were semi-structured, but allowed for digression and elaboration. All were taped and transcribed verbatim. Interviews were from 20 to 90 minutes in length.

During the final year of evaluation, brief structured interviews were conducted with each of the teachers who had been observed in their classrooms. These five-minute interviews were conducted by the observers and were designed to address more specifically the participants' actual participation in supervision cycles and their perceptions of those cycles. A total of 35 such interviews were conducted.

Informal Assessments

Informal evaluation methods took various forms:

1. participant observation. The research/evaluation project director attended and participated in a number of training sessions with the Coaching Team and attended occasional team meetings;
2. members of the Coaching Team kept journals during the second year of the project;
3. members of the G - H and the new I - J training groups submitted five-minute logs to the Project Coordinator following each training session. Summaries of these were provided to the research/evaluation project director; and
4. the research/evaluation project director and various research team members attended and participated in several meetings of the Project Steering Committee.

Finally, members of the research/evaluation teams, and in particular the director of the evaluation project, attended various functions associated with the Model during 1986

-89. During these functions there were many informal conversations with teachers and administrators and a 'sense' of the Model was communicated. While this information was not quantifiable or 'objective', it was important information and it became part of the assessment of the Model.

Surveys

A number of surveys were administered to participants in the Model. The sample for these surveys was the same as the sample for the teacher observations.

Participant Perceptions Survey. This survey was designed by the researchers to assess participants' perceptions of the Medicine Hat supervision and evaluation policies and practices, the Supervision Training Model and the possible impact of the Model. It was developed and tested by the evaluation team and administered in January of 1987. The survey was modified and readministered to the same participants in the Fall of 1987 and the Fall of 1988.

Stages of Concern. The second survey assessed participants' concerns and was based on the work of Hall, George and Rutherford (1979). Assessment of participants' concerns at various stages of the training project arose from a belief that the way the project is perceived and the intensity of the feelings about the project affect the extent and nature of its implementation and effectiveness. "The composite representation of the feelings, preoccupation, thought and consideration given to a particular task is called a concern" (Hall et al., 1979, p. 5). Depending on one's past experiences with an issue or a problem or innovation, one's concerns will vary in type and intensity.

Hall and his colleagues have identified several stages of concern that appear to occur in a relatively predictable developmental pattern, regardless of the type of innovation or the setting. These stages have been identified as indicated in Figure 3-2. The research suggests further that earlier concerns must first be resolved (lowered in intensity) before later concerns emerge. Fuller (cited in Hall, George & Rutherford, 1979) points out that

Awareness: Little concern about or involvement with the innovation is indicated.

Informational: A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about herself/himself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.

Personal: Individual is uncertain about the demands of the innovation, her/his inadequacy to meet those demands, and her/his role with the innovation. This includes analysis of her/his role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

Management: Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

Consequence: Attention focuses on impact of the innovation on students in her/his immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.

Collaboration: The focus is on coordination and cooperation with others regarding use of the innovation.

Refocusing: The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.

Figure 3-2: Stages of Concern About an Innovation
(Adapted from: Hall, George and Rutherford, 1979, p. 7)

arousal and resolution of concerns require different inputs:

> Arousal seems to occur during affective experiences -- for example, during confrontation with one's own video tape . . . . Resolution seems to occur through more cognitive experiences: acquisition of information, practice, evaluation, synthesis and so on (p.6).

The Stages of Concern (SoC) questionnaire consists of 35 items rated on a 7-point scale, ranging from "not true of me now" to "very true of me now", with an additional category for "irrelevant". Scoring procedures defined by the authors result in a score for each of the seven categories described in Figure 3-2. Considerable validity, reliability and developmental/use information about the instrument is available in Hall et al. (1979).

Teachers' Sense of Efficacy. The concept of self-efficacy is based on Bandura's (1977) work; the concept of teacher efficacy was first raised in two RAND studies (Berman, et al., 1977). Teacher efficacy appears to consist of at least two dimensions: teaching efficacy, or a belief that certain teaching behaviors will lead to certain outcomes, and personal efficacy, or a belief that one has the necessary skills and abilities to effect those outcomes. Scores on these dimensions have been shown to be significantly related to student achievement and to teacher behaviors (Anderson & Greene, 1988; Ashton & Webb, 1986; Dembo & Gibson, 1985).

It was hypothesized by the researchers that teachers who receive training and who regularly practice the skills advocated in the Model for Supervision and Evaluation would ultimately develop a stronger belief in their own personal efficacy and in the efficacy of other teachers in the system. Efficacy was measured by means of a scale developed and validated by Gibson and Dembo (1984). The scale has an internal reliability score of .78 for the personal dimension and .75 for the teaching dimension of efficacy.

Non-Participant Perceptions Survey. The research team believed that teachers and administrators who had chosen not to participate in the supervision training might have valuable information and useful insights about the Model. Accordingly, permission was requested and received from the Project Steering Committee to administer a survey to the

153 persons in the Medicine Hat School District who had not yet participated in the training. The instrument requested opinions and perceptions about the Model for Supervision and Evaluation and the training component of the Model. Five surveys were returned either unopened or incomplete from teachers who were no longer in the system. Completed surveys were received from 95 (64%) of the eligible 148 non-participants.

Case Studies

In order to represent how various stakeholders both individually and collectively experienced the Model, case studies of selected schools within the district were conducted. Two elementary and two secondary schools were selected to represent the various levels and perceived degrees of involvement of individuals and groups within the project. A list of potential case study schools was prepared by the School District. This list included most of the schools where a significant number of the project participants taught. The four schools selected for the case studies were chosen from this list. The schools chosen were considered to be representative of such aspects as school type (elementary, secondary), participation in the project including time and degree of commitment, and size. The specific purposes of the case studies were to describe and interpret:

1. the district, school and personal teaching contexts into which the innovation was introduced.
2. the various participants' experiences of, attitudes towards and perceptions of the innovation; its introduction and process of implementation; its use and effect upon the teaching, learning and professional development of the participants.
3. how the project unfolded and manifested itself in different settings and with different people.
4. knowledge of critical variables related to the advantageous use of the innovation for professional development purposes.

In order to accomplish these purposes, a collaborative, co-investigator approach to the case studies was used. That is, the initial consideration in meeting with the school staffs was to honor their expertise and their experience with the Model and to invite them to collaboratively develop the strategies to be used in designing and implementing their case study. These strategies are described in Chapter 6.

Pockets of Activity

Toward the end of the second year of the research/evaluation project it became apparent that there were teachers or groups of teachers in certain schools or departments who were attempting to expand or modify the initial intents of the Model for their particular situations. The identification of these groups was based primarily on the perceptions of the Model administrators and trainer. These situations were labelled 'pockets of activity'; six pockets were identified for research since it appeared that this would be an important dimension of the Model to capture. The six pockets were in three different elementary schools, a junior high school and two senior high schools.

A contact person was identified for each pocket and a research team member was assigned to each. Methods for collecting information about the pockets were negotiated between the researcher and the participants in each of the pockets. These methods are elaborated more fully in the Results section.

Summary Comment

The methods employed for this research/evaluation project were extensive and varied. In addition to an intensive review of the literature, there were data from more than 150 classroom observations each involving two observers, from more than 80 videotapes, 1100 student surveys and almost 1000 teacher surveys, some involving extensive responses. In addition, teachers and administrators participated in 195 interviews which resulted in more than 2000 typed pages of transcript, not to mention the journals, meetings and countless less formal activities. These data not only present a detailed and in-depth picture of the project; they also represent a significant commitment on the part of the Medicine Hat participants.

CHAPTER 4

THE EFFECTS OF THE MODEL ON TEACHER AND STUDENT BEHAVIORS

(Research Questions 1, 2 and 5)

M. L. Greene and R. G. Whitehead

This chapter describes the results obtained from the three years of classroom observations of those teachers and students included in the research sample described in Table 3-1 in Chapter 3 (p. 48). As described in detail in Chapter 3, two observers visited each teacher's classroom once during each of the three years of the study; one observer recorded teacher behavior using the UWTAS instrument while the other recorded students' engaged behavior. Also included in this chapter are the results of the classroom climate surveys administered to the students in the first two years of the study.

Observations of Teacher Behavior

Teachers' observed skill scores for all teachers in the sample by training group, for each year of data collection, are presented in Table 4-1. Each teaching skill consisted of a number of behavioral indicators as shown in the table; the maximum possible score for any skill was 1.00. What is perhaps not clear from the table is that the 1986 scores were derived from the observations of 57 teachers -- 31 from the 1985 (A - D) group and 26 from the 1986 (E - F) group; the 1987 scores were based on 53 teachers -- 22 from the 1985 (A - D) group, 14 from the 1986 (E - F) group, and 17 from the new 1987 (G - H) group; the 1988 scores were from 14, 8 and 15 teachers from the 1985, 1986 and 1987 groups respectively. In Table 4-2 the scores of those teachers who withdrew at any point during the research/evaluation project have been excluded.

Because of the amount and complexity of the information contained in Tables 4-1 and 4-2, very few conclusions can be drawn from the data except to say that in general, scores were relatively high and standard deviations were relatively low. T-tests between scores of male and female teachers, and between scores of elementary and secondary

Table 4-1

Teachers' Observed Skill Scores for 1986 -1988 Classroom Observations
(All Respondents, All Three Years)

			Observed Skill Score					
			A-D Group (*N* = 31, 22, 14)		E-F Group (*N* = 26, 14, 8)		G-H Group (*N* = 0, 17, 15)	
Skill	No. of Indicators in the Skill	Year Observed	M	SD	M	SD	M	SD
Organizes Instruction Effectively	20	86	.74	.10	.74	.11	—	—
		87	.76	.14	.68	.16	.74	.15
		88	.75	.10	.81	.14	.77	.14
Demonstrates Confidence when Teaching	8	86	.76	.19	.72	.16	—	—
		87	.81	.19	.64	.25	.74	.17
		88	.78	.16	.84	.16	.72	.18
Uses Instructional Strategies & Resources Related to Objectives	8	86	.73	.13	.73	.16	—	—
		87	.75	.16	.70	.16	.71	.22
		88	.74	.12	.77	.24	.75	.21
Exhibits Appropriate Interpersonal Behavior	24	86	.74	.15	.71	.13	—	—
		87	.75	.18	.70	.15	.73	.15
		88	.72	.13	.86	.13	.76	.13
Communicates with Learners	16	86	.72	.15	.72	.14	—	—
		87	.75	.17	.67	.18	.72	.16
		88	.72	.11	.79	.14	.72	.17
Uses Appr. Preventative Measures and/or Corrective Classroom Mngmnt. Procedures	12	86	.70	.17	.70	.12	—	—
		87	.72	.16	.66	.20	.69	.27
		88	.73	.15	.84	.14	.74	.15
Reinforces & Encourages Learner Involvement in Instruction	8	86	.69	.15	.68	.16	—	—
		87	.70	.22	.61	.20	.64	.22
		88	.66	.13	.77	.23	.69	.18
Uses Appropriate Evaluation Procedures	8	86	.68	.17	.67	.19	—	—
		87	.71	.23	.63	.22	.72	.20
		88	.77	.15	.81	.14	.76	.22
Overall Score	104	86	.72	.12	.71	.12	—	—
		87	.75	.16	.67	.15	.72	.16
		88	.73	.09	.81	.14	.74	.13

Table 4-2

Teachers' Observed Skill Scores for 1986 -1988 Classroom Observations
(Only Those Teachers Observed Every Year)

			Observed Skill Score					
			A-D Group (*N* = 14)		E-F Group (*N* = 8)		G-H Group (*N* = 15)	
Skill	No. of Indicators in the Skill	Year Observed	M	SD	M	SD	M	SD
Organizes Instruction Effectively	20	86	.71	.07	.75	.08	—	—
		87	.75	.12	.74	.16	.75	.15
		88	.75	.10	.81	.14	.77	.14
Demonstrates Confidence when Teaching	8	86	.73	.15	.76	.13	—	—
		87	.83	.16	.67	.28	.73	.18
		88	.78	.16	.84	.16	.72	.18
Uses Instructional Strategies & Resources Related to Objectives	8	86	.71	.11	.73	.10	—	—
		87	.74	.13	.71	.22	.72	.21
		88	.74	.12	.77	.24	.75	.21
Exhibits Appropriate Interpersonal Behavior	24	86	.72	.17	.68	.10	—	—
		87	.74	.16	.75	.15	.75	.16
		88	.72	.13	.86	.13	.76	.13
Communicates with Learners	16	86	.70	.17	.72	.09	—	—
		87	.78	.11	.70	.22	.71	.17
		88	.72	.11	.79	.14	.72	.17
Uses App. Preventative Measures and/or Corrective Classroom Mngmnt. Procedures	12	86	.64	.22	.73	.05	—	—
		87	.71	.14	.73	.23	.69	.27
		88	.73	.15	.84	.14	.74	.15
Reinforces & Encourages Learner Involvement in Instruction	8	86	.65	.15	.71	.14	—	—
		87	.71	.17	.62	.26	.68	.21
		88	.66	.13	.77	.23	.69	.18
Uses App. Evaluation Procedures	8	86	.64	.18	.69	.13	—	—
		87	.70	.18	.66	.27	.73	.21
		88	.77	.15	.81	.14	.76	.22
Overall Score	104	86	.69	.12	.72	.07	—	—
		87	.75	.12	.71	.19	.73	.17
		88	.73	.09	.81	.14	.74	.13

teachers indicated no significant differences between groups. A pattern of improvement in teachers' observed scores over time or among groups is not readily apparent from Tables 4-1 or 4-2. It can be seen, however, that at the end of the second year of the research/evaluation project (1987), the scores for the 1985 (A - D) group had increased on every one of the eight skill areas; the scores for the 1986 (E - F) group had decreased in all of the eight areas. Although these differences were *not* statistically significant and it is entirely possible that the difference was due to chance, the changes for the E - F group in particular, were substantial and a number of speculative explanations for the phenomenon were explored. Interestingly, while the scores for the A - D group decreased slightly, the scores for the E - F group all increased substantially in the third year of observation (see Table 4-1). For two of these skills the differences were statistically significant ($p < .05$); the 1988 scores on 'exhibits appropriate interpersonal behavior' and 'uses appropriate preventative measures and/or corrective classroom management procedures' were significantly higher than the 1986 scores for the E - F group.

Table 4-3 and Figure 4-1 present the data for the final year of the study. At that time the 1985 (A - D) group had been involved in the Model for almost four years and had been observed three times for the purposes of the research project; the 1986 (E - F) group was beginning its third year of involvement and had also been observed three times; and the 1987 (G - H) group was beginning its second year of involvement and had been observed twice.

It is apparent from Table 4-3 and Figure 4-1 that in the final year of the research/evaluation project the scores of the 1986 (E - F) group were higher than the other two groups; however these differences were *not* statistically significant. There was little difference between the 1985 (A - D) and 1987 (G - H) groups. A further breakdown of the scores by year in project (group) over the three years of the study is presented in Figures 4-2 to 4-4. For the 14 persons in the 1985 (A - D) group who had scores for the three years, the scores in the first year were generally the lowest with an increase the

Table 4-3

Participants' Observed Skill Scores for Fall 1988 Classroom Observations (*N* = 37)

		Observed Skill Score					
		A-D Group *N* =14		E-F Group *N* = 8		G-H Group *N* = 15	
Skill	No. of Indicators in the Skill	M	SD	M	SD	M	SD
Organizes Instruction Effectively	20	0.75	0.10	0.81	0.14	0.77	0.14
Demonstrates Confidence When Teaching	8	0.78	0.16	0.84	0.16	0.72	0.18
Uses Instructional Strategies and Resources Related to Objectives	8	0.74	0.12	0.77	0.24	0.75	0.21
Exhibits Appropriate Interpersonal Behavior	24	0.72	0.13	0.86	0.13	0.76	0.13
Communicates With Learners	16	0.72	0.11	0.79	0.14	0.72	0.17
Uses Appropriate Preventative Measures and/or Corrective Classroom Management Procedures	12	0.73	0.15	0.84	0.14	0.74	0.15
Reinforces and Encourages Learner Involvement in Instruction	8	0.66	0.13	0.77	0.23	0.69	0.18
Uses Appropriate Evaluation Procedures	8	0.77	0.15	0.81	0.14	0.76	0.22
Overall Score	104	0.73	0.09	0.81	0.14	0.74	0.13

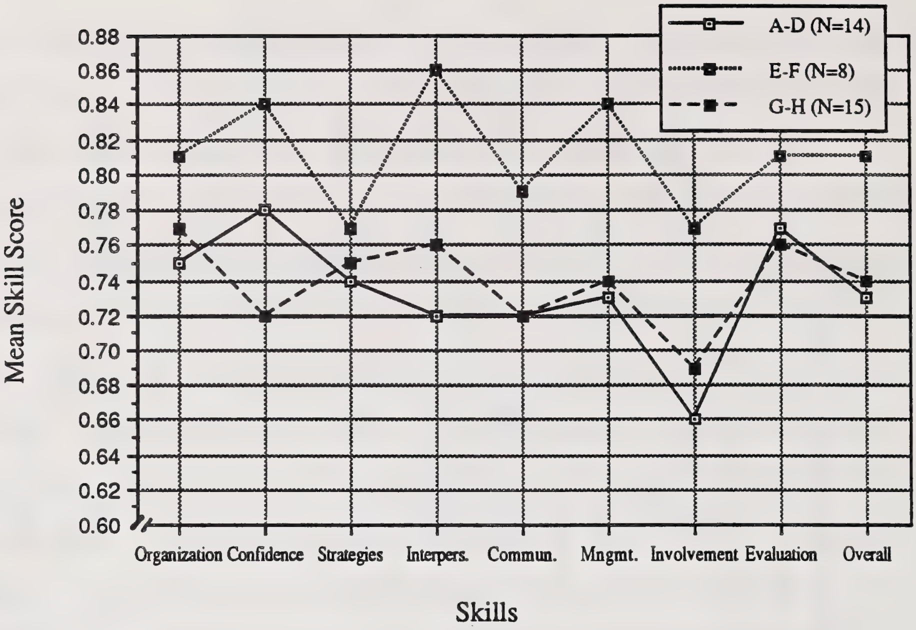


Figure 4-1: Participants' Observed 1988 Skill Scores

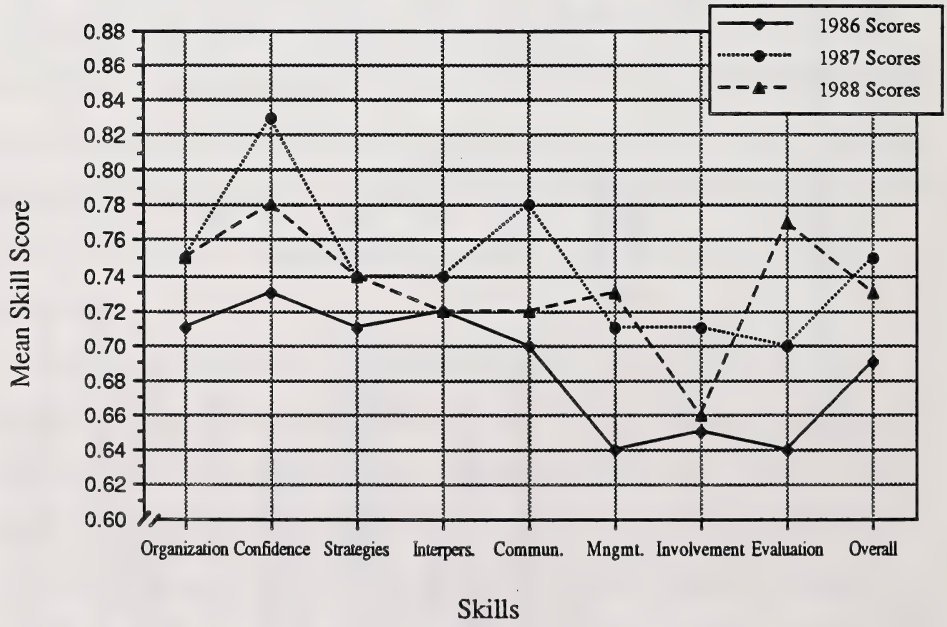


Figure 4-2: A-D Participants' Observed 1986, 1987 and 1988 Skill Scores (N=14)

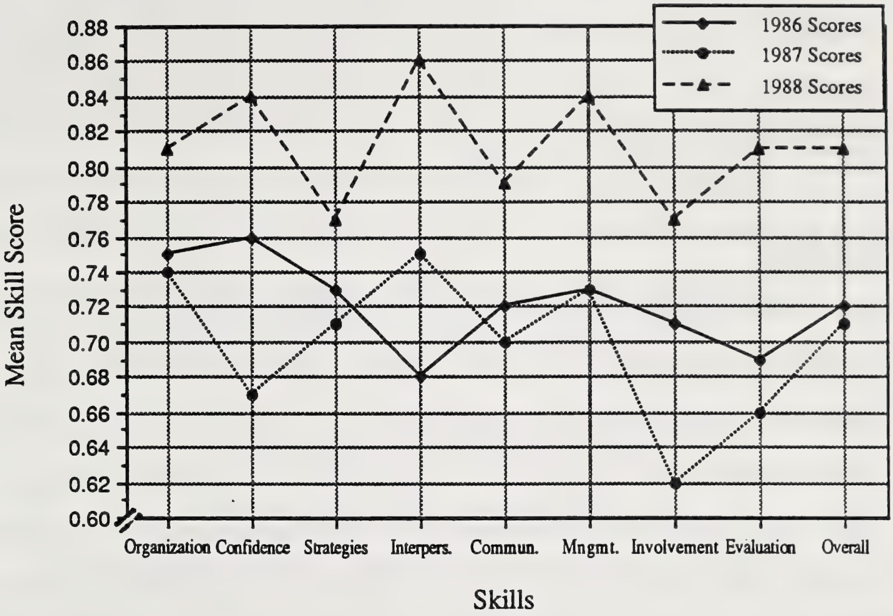


Figure 4-3: E-F Participants' Observed 1986, 1987 and 1988 Skill Scores (N=8)

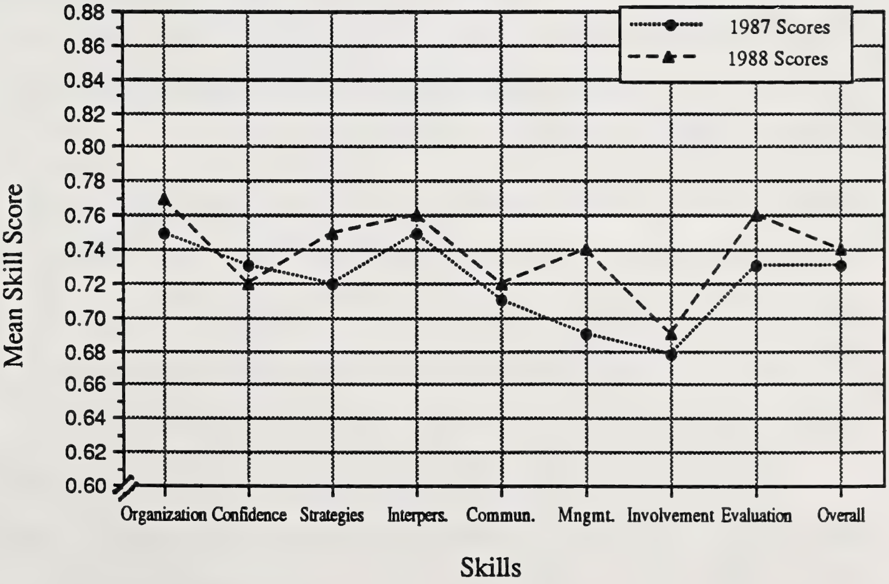


Figure 4-4: G-H Participants' Observed 1987 and 1988 Skill Scores (N=15)

second year and a slight decrease again in the third year (see Figure 4-2). For the eight E - F teachers, the 1988 scores were clearly higher than either of the other two years (Figure 4-3), and for the 15 G - H teachers (Figure 4-4) the scores increased slightly but not significantly in the last year of the study.

Discussion

Making generalizations from the scores created by observing teachers once a year for three years and rating them on a list of teaching behaviors is risky and may be very misleading. It was not always possible to have the same observer rate the same teacher teaching the same grade level and subject matter each of the three times, and the interactions among teacher, student and subject matter can greatly affect the teacher's behavior. Theoretically, some of the discrepancies would be countered by random sampling, but this is usually not the case with small numbers. For example, in the 1988 report it was apparent that the scores of the 1985 (A - D) group had all increased substantially and that those of the 1986 (E - F) group had all decreased substantially. Although the differences weren't significant we did speculate about possible reasons. In 1988 the E - F scores were the highest, and for some items the difference was significant. Perhaps the attention resulting from the 1987 report had caused this group to perform especially well for their next observation; perhaps those whose scores had been lower in 1987 did not continue in the research/evaluation project (six of the 14 teachers in the E - F group in 1987 were not observed in 1988, and the changes from 1986 to 1987 had not been dramatic when based only on those eight teachers who did continue); perhaps the changes are simply variations due to different contexts for the observations.

In summary it is apparent that for all groups and all years the teaching scores were relatively high. The observers frequently mentioned the excellent quality of teaching they were observing. Although numbers were small in terms of statistical analysis and generalizability, they represent a significant commitment on the part of the teachers. Also, as can be seen in Figure 4-5, for those teachers who were observed each year, the observed skill scores did increase over the duration of the project. Although none of the increases is statistically significant, and teachers' scores may have been expected to increase simply with greater experience (although this is not always the case with already experienced teachers), there is at least some indication that the longer teachers had participated in the Model, the higher their observed teaching scores.

Observations of Student Behavior

Observations of Student On-Task Behavior

The engaged ratio and delay time (minutes) for students in the various classes over the three years of the research/evaluation project are indicated in Table 4-4. The engaged ratio, that proportion of the allocated time in which students were actually involved in an assigned academic task, remained relatively high and stable over the three years of the project. The number of observations in each of the three groups decreased each year due to the reduced sample size. The delay time in minutes (the time between when the class officially starts and when teaching actually begins) did show a significant decrease from 1986 to 1987 for group A - D compared to group E - F and group G - H; however in 1988 there was no significant difference among groups.

Table 4-5 presents similar data as Table 4-4 but only for those teachers in each group whose classes were observed in each of the three years of the research/evaluation project (Group G - H was in the research/evaluation project in 1987 and 1988 only). The data were analyzed by group across the years using a repeat measures ANOVA. There were no significant differences. The engaged ratios were consistently high with consistently low standard deviations. The delay time also did not vary significantly across years within the groups. This topic of on-task behavior was one that was often discussed in the supervisory conferences, which perhaps accounts for the high engaged ratio over the

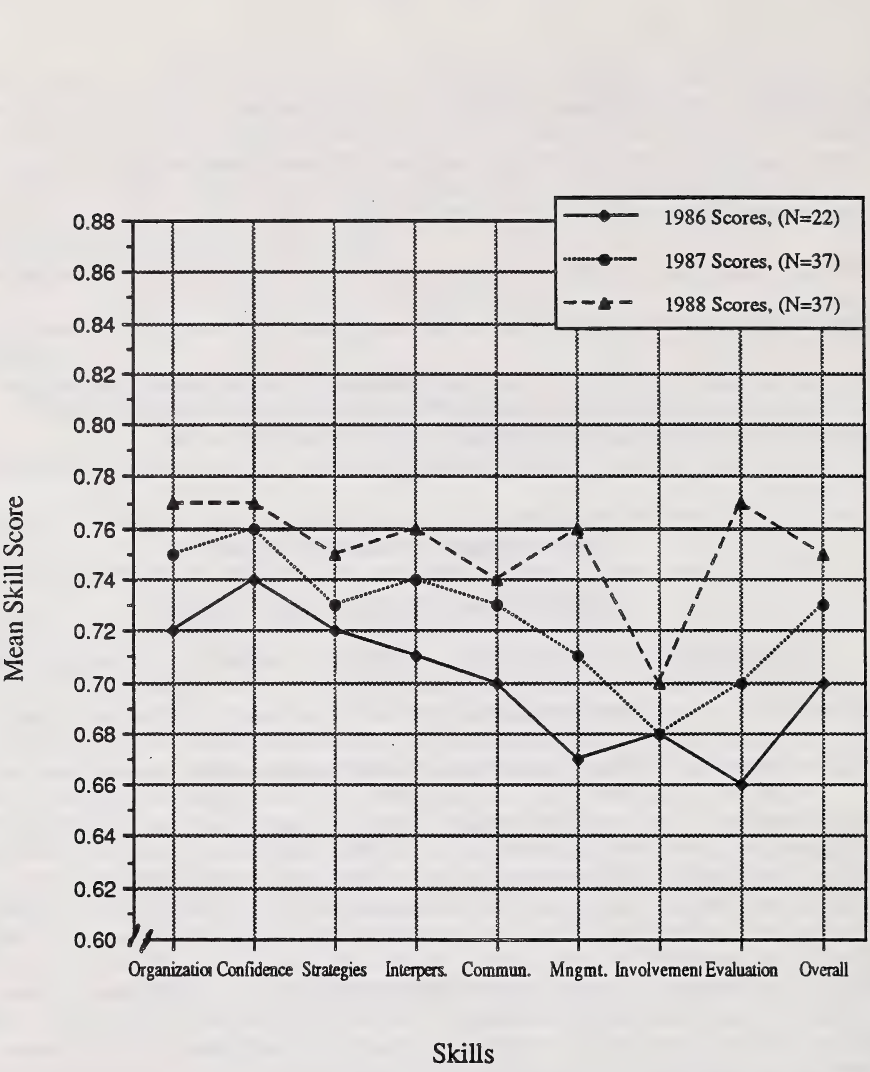


Figure 4-5: All Participants' Observed Skills Scores Over Time

Table 4-4

Comparison of Students' Observed On-Task Behavior for 1986-88 Classroom Observations

Variable	Year Observed	A-D Group			E-F Group			G-H Group		
		N	M	SD	N	M	SD	N	M	SD
Engaged Ratio	1986	31	.87	.07	28	.80	.06		N/A	
	1987	22	.86	.07	14	.84	.07	18	.84	.07
	1988	14	.85	.07	8	.83	.11	15	.85	.07
Delay Time (minutes)	1986	27	2.07	2.53	26	1.58	1.82		N/A	
	1987	22	.73	.98	14	1.43	1.95	18	1.72	2.22
	1988	14	1.29	1.82	8	1.25	1.67	15	1.00	1.46

Table 4-5

Students' Observed On-Task Behavior for 1986-88 Classroom Observations (Only Those Observed Each Year)

Variable	Year Observed	A-D Group			E-F Group			G-H Group		
		N	M	SD	N	M	SD	N	M	SD
Engaged Ratio	1986	14	.87	.07	8	.80	.07		N/A	
	1987	14	.84	.06	8	.87	.07	15	.85	.05
	1988	14	.85	.07	8	.83	.11	15	.85	.07
Delay Time (minutes)	1986	13	2.08	2.78	8	1.12	1.36		N/A	
	1987	14	.79	.98	8	1.62	2.26	15	2.07	2.28
	1988	14	1.29	1.82	8	1.25	1.67	15	1.00	1.46

duration of the project.

Classroom Climate Measures

Classroom Environment Surveys

Grades 6, 9 and 12 students whose teachers had been in the project since 1985 or 1986 completed measures of classroom climate during the first two years of the study. Descriptive information about the students is presented in Table 4-6. Grade 9 and 12 teachers and students rated the learning environment of their classroom using the 50-item Individualized Classroom Environment Questionnaire (ICEQ). The ICEQ results can be related to Moos's (1974) scheme for classifying human environments.

> Moos' three basic types of dimension are **Relationship Dimensions** (which identify the nature and intensity of personal relationships within the environment and assess the extent to which people are involved in the environment and support and help each other), **Personal Development Dimensions** (which assess basic directions along which personal growth and self-enhancement tend to occur), and **System Maintainance and System Change Dimensions** (which involve the extent to which the environment is orderly, clear in expectations, maintains control, and is responsive to change) (cited in Fraser, 1986, p.5).

The personalization and participation categories of the ICEQ characterize Moos's relationship Dimension; the independence and investigation categories relate to the Personal Development Dimension, and differentiation is similar to Moos's System Maintainance and Change.

Results were coded and scored according to the test procedures, resulting in scores in five categories. Possible scores in each category range from 10 to 50 with 50 indicating the most positive rating. The teachers' scores for each dimension for each of the two years of testing are presented in Table 4-7; students' results are presented in Table 4-8.

Table 4-7 indicates that teachers rated their classrooms highest on the participation of their students and the extent to which they perceived their classrooms to be personalized (Moos's Relationship Dimension). Teachers rated their classrooms lowest on independence and differentiation which are part of the 'Personal Development' and

Table 4-6

Descriptive Information About Students Who Completed Classroom Climate Surveys

		Grade 5/6		Grade 9		Grade 12		Total	
Characteristic	Year Surveyed	N	%	N	%	N	%	N	%
Teachers - A-D	86	10	91.0	6	60.0	7	88.0	23	79.0
	87	7	87.5	3	60.0	9	100.0	19	86.4
- E-F	86	1	9.0	4	40.0	1	12.0	6	21.0
	87	1	12.5	2	40.0	0	0.0	3	13.6
Total no. of classes	86	11	100.0	10	100.0	8	100.0	29	100.0
	87	8	100.0	5	100.0	9	100.0	22	100.0
Students - female	86	135	56.0	104	48.0	68	43.0	307	50.0
	87	87	48.6	47	43.5	95	45.5	229	46.2
- male	86	104	44.0	114	52.0	88	56.0	306	50.0
	87	92	51.4	61	56.5	114	54.5	267	53.8
- not stated	86	0	0.0	0	0.0	2	1.0	2	0.0
	87	0	0.0	0	0.0	0	0.0	0	0.0
Total no. of students	86	239	100.0	218	100.0	158	100.0	615	100.0
	87	179*	100.0	108	100.0	209**	100.0	496	100.0
Median age of students	86	11 years		14 years		17 years		14 years	
	87	10 years		14 years		17 years		14 years	

* 80 Grade 5 students, and 99 Grade 6 students.

** 11 Grade 11 students, and 198 Grade 12 students.

Table 4-7

Comparison of Grade 9 and 12 Teachers' Mean 1986 and 1987 Scores on the Individualized Classroom Environment Questionnaire (*N* = 13)

	Normative Data*		1986-87 Scores		1987-88 Scores	
Dimension	M	SD	M	SD	M	SD
Participation	36.5	4.7	38.69	5.12	39.31	4.61
Personalization	37.9	5.0	38.46	3.86	40.08	3.84
Investigation	31.8	5.5	32.92	6.22	32.67	4.66
Independence	26.2	6.0	25.46	5.38	24.08	6.95
Differentiation	25.0	6.0	21.77	5.69	23.15	6.69

* Based on 90 Grade 7 - 9 urban and rural teachers in Australia (Fraser & Fisher, 1983, p.5)

Table 4-8

1986 and 1987 Class Mean Scores on the Individualized Classroom Environment Questionnaire for Grade 9 & 12 Students of *A-D & E-F* Participants (*N* = 14 classrooms)

	Normative Data*		1986-87 Scores		1987-88 Scores	
Scale	M	SD	M	SD	M	SD
Participation	33.9	5.3	36.45	2.59	36.21	2.67
Personalization	32.7	6.7	34.01	2.63	34.85	4.10
Investigation	30.1	5.4	30.98	2.54	29.71	2.16
Independence	27.8	6.0	26.80	4.08	27.16	3.93
Differentiation	23.5	6.0	19.79	3.24	19.30	3.23

* Based on 1849 Grade 7 - 9 urban and rural students in Australia (Fraser & Fisher, 1983 p. 5).

'System Maintainance and Change' Dimensions according to Moos. There were no significant differences between the scores of male and female teachers, or between teachers in the first and second year of training.

In general, the students' results were very similar to the teachers' results. Participation and personalization were rated highest by the students, although they were still not quite as high as the teachers' ratings. Differentiation and independence were again rated lowest. The results of a two-way analysis of variance of students' ratings by sex and grade indicated significant F -values for sex on the Personalization, Participation and Independence categories; ratings by females were significantly higher in all cases. F -values for grade level were significant for Personalization, Independence, Investigation and Differentiation. Grade 9 students rated Personalization and Differentiation higher, whereas Grade 12 students rated their classrooms higher on Independence and Investigation. Interactions between sex and grade were not significant.

T-tests on the 1986 data between the ratings of students whose teachers had been in the project since 1985 (N = 262 students, 13 teachers) and those whose teachers had begun the project in 1986 (N = 105 students, 6 teachers) were not significant except on the Differentiation score; students of teachers who had just begun training rated their classrooms more differentiated. These results may have been due to an interaction with grade level; however interactions between grade level and year of the project were not tested because of small numbers in one of the groups. Because of the small number of 1986 (E - F) participants whose students had scores for both years of the project, no statistical tests were conducted on the 1987 data. Classroom scores had changed little, if at all, from the previous year and no attempt was made to interpret these data further.

Students in Grade 6 completed the My Class Inventory (MCI). As described previously this test assesses students' perceptions of their classroom climate. Students respond to 38 items about their class by circling 'yes' or 'no' to indicate whether or not they agree with the statement. Scoring of the instrument produces five scales: Satisfaction, Friction, Competitiveness, Difficulty and Cohesiveness. A higher score indicates a greater degree of the characteristic being measured. Results are presented in Table 4-9. The students appeared to be relatively satisfied with their classrooms; the satisfaction score was somewhat higher than the norm, whereas scores on the other scales were somewhat lower. Changes from 1986 to 1987 were too small to be meaningful.

Classroom Enrichment Surveys

The Classroom Enrichment Index was administered to the same students who completed the classroom environment surveys. The results of these surveys constitute a separate study based on the premise that effective teachers create certain classroom characteristics, typically those associated with enrichment and gifted programming, which result in greater student benefits. It was anticipated that if the teachers in the Medicine Hat Supervision and Evaluation project were made aware of the characteristics in their classroom and if they chose to focus on these characteristics through supervision and evaluation, changes in student perceptions of these benefits should become evident over the duration of the project.

Because of the nature of the survey, to aggregate the data across classrooms is misleading; nor were there sufficient numbers of teachers at each grade level to permit comparisons of teachers in different years of the project. The most meaningful presentation of the data is by individual classroom; however this type of presentation was not considered to be appropriate for this particular report. Therefore the results of the Classroom Enrichment Indexes are presented in Tables A, B and C along with the narrative in Appendix B. The researchers suggested that the data might be explored with individual teachers, but the decision of the project Steering Committee was that identifying particular teachers at that stage of the project might undermine the sense of trust in the confidentiality of the research process.

Having said that it may be misleading to summarize the results across classrooms,

Table 4-9

1986 and 1987 Class Mean Scores on the My Class Inventory
for Grades 5 and 6 Students (*N* = 8 classrooms)

	Normative Data*		1986-87 Scores		1987-88 Scores	
Scale	M	SD	M	SD	M	SD
Satisfaction	18.87	5.08	19.97	2.02	19.42	2.02
Friction	18.23	3.81	16.86	1.25	16.54	0.90
Competitiveness	16.20	3.62	15.93	1.22	16.22	0.94
Difficulty	12.31	3.40	11.69	0.99	11.86	1.19
Cohesiveness	14.01	3.12	11.28	1.07	10.33	1.12

* Based on 2305 students in 100 Grade 7 classes (Fraser & Fisher, 1983. p. 13).

there were, nevertheless, themes in the quantitative results and the open-ended responses in the 1986 survey, that would appear to warrant attention here to encourage the reader to read Appendix B. In all but one Grade 6 classroom, and in six of the Grade 8 classrooms, the majority of students indicated that they experienced the items listed in the Enrichment Index as benefits in their classrooms. In Grade 9, however, the ratings were considerably lower; only a small percentage of the students indicated that the atmosphere made them feel like working, for example, and the variability across classes on many of the items was considerably higher than in Grades 6 or 12. The researchers also identified some preliminary 'themes' from the students' comments: 1) it is teachers who make the class special (a special teacher makes the class interesting; a special teacher understands us; a special teacher has a sense of play); 2) friends make the class special; and 3) class discussions make the class special. Results from the second administration of the Classroom Enrichment Indexes in 1987 differed very little from the 1986 results. The survey was not administered in 1988.

Summary Statement

Generally, and not surprisingly, observations of teachers' and students' behaviors identified little measurable statistically significant change. Fluctuations in teachers' scores were apparent over the duration of the project; for example, all scores for the A - D group had increased in the second year of the research/evaluation project whereas scores for the E - F group had decreased. This trend was not apparent in the final year of data collection; in fact, E - F scores were the highest in the final year, perhaps because of a real effort on the part of the E - F group, perhaps because teachers with low scores dropped out in the third year, perhaps because of the nature of the classes observed, perhaps because these teachers were more willing to take risks in the second year. On the whole, scores were high and there was a slight overall increase in scores for teachers who were observed each year of the project.

There were a number of possible reasons why there were not more obvious changes in teacher behavior. One reason is methodology -- the nature of the observations, the data collection instruments, and the changing sample. Similarly, the nature of the particular class observed affected the ratings. Another possible explanation is that as teachers try new strategies and take new risks, scores on traditional measures of teaching are unlikely to increase.

Changes in students' perceptions of their classroom environment were not identified. Nor were there measurable changes in student achievement scores. With respect to the time students were considered to be on-task, percentages were generally high. However, there were no measurable differences across groups or over the duration of the research/evaluation project.

CHAPTER 5

THE EFFECTS OF THE MODEL ON SUPERVISORY CONFERENCING BEHAVIORS

(Research Question 3)

R. G. Whitehead

This chapter describes the results of the research relating to the third research question: What is the impact of the Model on supervisor and teacher conferencing behavior? The data for this question were obtained from teachers included in the research sample described in Table 3-1. As described in Chapter 3, participants were requested to videotape a pre-conference and a post-conference early in the fall of each of the three years of the research/evaluation project. These conferences were then analyzed using the Supervisior-Teacher Analogous Categories Systems (STACS).

Among the goals of the project were the use of the clinical supervision and coaching approaches to instructional improvement. These approaches emphasize the collegial approach of supervision where the teacher has a major responsibility to evaluate his/her own specific teaching patterns. This shifts the role of the supervisor from judge to helper/facilitator. The teacher then has the responsibility, and the opportunity to evaluate his/her own performance. This is best carried out in a non-threatening environment. The supervisory conference analysis should reflect such behaviors.

The videotaped supervisory conferences in the Fall of 1986 were completed by 31 participants made up of 18 from group A - D and 13 from group E - F. In 1987 there were 33 participants with 14 from group A - D, nine from group E - F and ten from group G - H. In the final year there were 13 participants, six from group A - D, five from group E - F, and two from group G - H. There were eight people who completed videotaped conferences for all three years of the research/evaluation project, five from group A - D, and three from group E - F. The first videotapes analyzed for the research/evaluation project were completed in the time period from late October to December in 1986. Even at this early stage of the research, group A - D had been involved in the research/evaluation project for a year, and the E - F group had received training in the process prior to being videotaped so that even these initial data had been affected by the implementation of the Model.

Results

Comparisons With an Untrained Group

Table 5-1 and Figure 5-1 compare the data for the 13 participants who completed the videotaped conferences in 1988-89, the final year, with a similar group of teachers and administrators in Southern Alberta who were videotaped prior to any training. This group had been studied by Keir (1981) and their conferences were analyzed using the nine STACS categories dealing with percent duration of supervisor behavior. The data were compared to the final year data of the research/evaluation project by means of a t-test. Four of the nine categories were significantly different at the alpha ≤.01 level. In Category 1, 'Supervisor Supportive Behavior', the untrained group had a mean duration of 8.78 percent of the total conference (SD=5.27), while those in the research/evaluation project had a lower mean duration of 2.79 percent (SD=3.94); that is, supervisors in the Model spent a lower proportion of time providing 'supportive behavior'. This is consistent with the expectation of the Model even though it may not appear to be on initial examination. This will be explained in the discussion section. Supervisors in the final year of the research/evaluation project spent a substantially and significantly higher percent of the conference providing solicited information, with a mean duration of 23.34 percent (SD=3.69), than did the untrained group with a mean duration of 0.13 percent (SD=0.28). The other two areas indicating a significantly lower percent duration of conference behavior by the participants in the research/evaluation project compared with the untrained group were Category 7, 'Supervisor Provides Unsolicited Information', and Category 8 'Supervisor Provides Unsolicited Suggestions'. In Category 7 the mean percentage of conference duration was 11.92 percent for the untrained group (SD=7.09), compared with

Table 5-1

Percent Duration of Supervisor Conferencing Behavior
Comparing an Untrained Group to Medicine Hat 1988-89 Participants

	Untrained Group[1] (*N*=22)		1988-89 Medicine Hat (*N*=13)		
STACS Category	M	SD	M	SD	*t*-score
1 Supervisor Supportive Behavior	8.78	5.27	2.79	1.82	3.94**
2 Supervisor Accepts or Uses Behavior	5.33	2.92	4.87	3.79	0.41
3 Supervisor Solicits Information	2.47	2.60	3.61	3.98	-1.03
4 Supervisor Solicits Opinions or Suggestions	4.02	4.59	5.60	4.56	-0.99
5 Supervisor Provides Solicited Information	0.13	0.28	23.34	13.69	-8.03**
6 Supervisor Solicits Opinions or Suggestions	1.07	2.84	0.68	1.46	0.46
7 Supervisor Provides Unsolicited Information	11.92	7.09	2.96	4.05	4.15**
8 Supervisor Provides Unsolicited Suggestions	26.54	11.38	7.02	8.92	5.29**
9 Supervisor Non-supportive Behavior	0.81	1.44	0.57	2.05	0.41

Note 1: Data obtained from Keir, A. (1981)
** $p \leq .01$; *$p \leq .05$

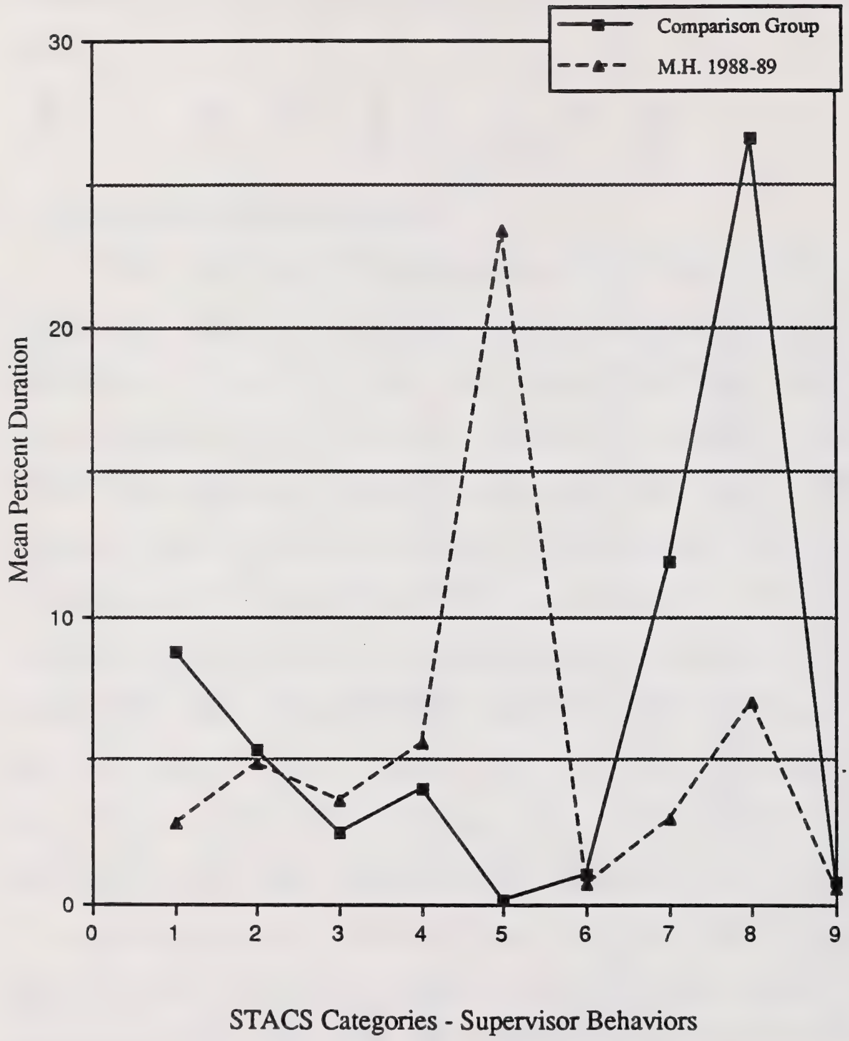


Figure 5-1: Percent Duration of Supervisor Conferencing Behavior Comparing an Untrained Group to Medicine Hat 1988-89 Participants

2.96 percent for Model participants (SD=4.05); in Category 8, 'Supervisor Provides Unsolicited Opinion or Suggestions', the difference in mean duration was 26.54 percent (SD=11.38) for the untrained group, compared with 7.02 percent (SD=8.9) for the project participants.

Comparisons Over Time

In the second year of the research/evaluation project it had been noted that there was a particularly high percentage of the conference time spent by the supervisors providing solicited information. Tables 5-2 and 5-3 and Figure 5-2 present the data for the 33 participants in 1987 and the 13 participants in 1988 over the 19 categories of STACS. These were compared by means of a t-test. In the supervisor section of STACS there were three categories where there were significant differences. The first was Category 1, 'Supervisor Supportive Behavior'. The 1987 group had a mean of 1.57 percent of the duration of the conference (SD=1.43); the 1988-89 group had a mean duration of 2.79 percent (SD=1.82). The second area showing a significant difference was Category 2, 'Supervisor Accepts or Uses the Ideas of the Other'. In this case, in the 1987 data the mean was 1.77 percent duration (SD=1.72), while in 1988 the mean was 4.87 percent duration of the total conference (SD=3.79). The third area of significant difference in supervisor behavior was Category 5, 'Supervisor Provides Solicited Information. In 1987 the mean duration for the supervisors in this category was 38.10 percent duration (SD=16.46). In 1988 there was a decrease in the mean percent duration to 23.34 percent (SD=13.69).

For the teacher behaviors there were also three areas where there was a significant difference between the 1987-88 and the 1988-89 data. In Category 12, 'Teacher Accepts or Uses the Other's Ideas', the mean percent duration in 1987 was 1.74 percent (SD=1.76). In 1988 this increased to a mean duration of 3.37 percent (SD=3.57). The second area of difference in teacher behavior was Category 16, 'Teacher Provides Solicited

Table 5-2

Comparison of Percent Duration of Supervisor Behavior of 1987-88 Conferences and 1988-89 Conferences

		1987-88 Data (N=33)		1988-89 Data (N=13)		
	STACS Category	M	SD	M	SD	t-score
1	Supervisor Supportive Behavior	1.57	1.43	2.79	1.82	2.44*
2	Supervisor Accepts or Uses Behavior	1.77	1.72	4.87	3.79	-3.83*
3	Supervisor Solicits Information	2.76	2.62	3.61	3.98	-0.86
4	Supervisor Solicits Opinions or Suggestions	2.92	3.14	5.59	4.56	-1.93
5	Supervisor Provides Solicited Information	38.10	16.46	23.34	13.69	2.86*
6	Supervisor Solicits Opinions or Suggestions	1.19	2.87	0.68	1.46	0.63
7	Supervisor Provides Unsolicited Information	1.55	3.14	2.96	4.05	0.91
8	Supervisor Provides Unsolicited Suggestions	9.20	10.61	7.02	8.92	0.20
9	Supervisor Non-supportive Behavior	0.21	0.92	0.57	2.05	-0.88
10	Silence or Confusion	1.83	2.02	1.29	1.65	0.86

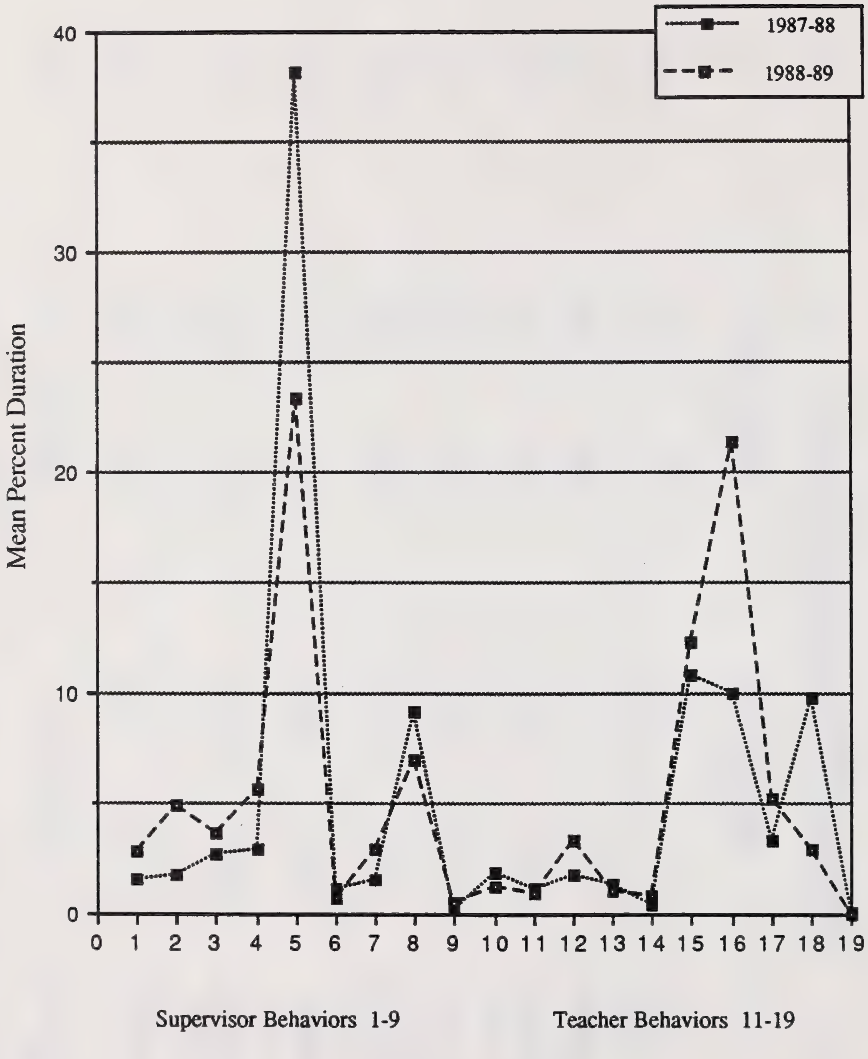
** $p \leq .01$; *$p \leq .05$

Table 5-3

Comparison of Percent Duration of Teacher Behavior
of 1987-88 Conferences and 1988-89 Conferences

	1987-88 Data (*N*=33)		1988-89 Data (*N*=13)		
STACS Category	M	SD	M	SD	*t*-score
11 Teacher Supportive Behavior	1.12	1.20	0.95	0.48	0.49
12 Teacher Accepts or Uses the Other's Ideas	1.74	1.76	3.37	3.57	-2.67*
13 Teacher Solicits Information	1.40	1.92	1.03	1.08	0.65
14 Teacher Solicits Opinions or Suggestions	0.45	1.92	0.80	0.21	-0.65
15 Teacher Provides Solicited Information	10.86	8.41	12.34	16.38	0.40
16 Teacher Provides Solicited Opinions or Suggestions	10.04	11.15	21.36	20.05	-2.44*
17 Teacher Provides Unsolicited Information	3.37	4.66	5.25	4.69	-1.23
18 Teacher Provides Unsolicited Opinions or Suggestions	9.79	8.94	2.90	4.53	2.56*
19 Teacher Non-supportive Behavior	0.13	0.53	0.00	0.00	0.76

** $p \leq .01$; *$p \leq .05$



STACS Categories

Figure 5-2: Percent Duration of Supervisor and Teacher Conferencing Behaviors

Opinion or Suggestions'. In 1987 the mean percent duration was 10.04 percent (SD=11.15). In 1988 the mean percent duration more than doubled to 21.36 percent (SD=20.05). The third and final area where there was a significant difference was Category 18, 'Teacher Provides Unsolicited Opinions or Suggestions'. The mean duration in 1987 was 9.79 percent (SD=8.94). In 1988 this decreased to mean duration of 2.90 percent (SD=4.53).

Tables 5-4 and 5-5 and Figure 5-3 compare the supervisor behavior in seconds for participants completing conferences for all three years of the research/evaluation project. The data is reported in time duration rather than percent duration in order to illustrate more clearly the length of the supervisory conference, which is included in Table 5-5. The percent durations can easily be calculated from the data. There were only eight supervisors, all from groups A - F, who were videotaped each of the three years of the project. The G - H group were not included because of their entry into the project during the second year. The only area where there was a significant difference in supervisor behavior using a Repeated Measures Analysis of Variance was Category 1, "Supervisor Supportive Behavior' ($F=9.55$; $p\leq .01$). In the first year of the project, 1986-87, the mean duration was 1.33 seconds (SD=1.21), in the second year it was 8.25 seconds (SD=7.48), and in the third year the mean duration was 22.50 seconds (SD=14.87). In the teacher conferencing behaviors, there were three areas that showed a significant difference. The first area was category 'Teacher Supportive Behavior'. The mean duration in 1986 was 1.43 seconds (SD=2.66). In 1987 the mean was 4.50 seconds (SD=3.59), and in 1988 the mean was 6.38 seconds (SD=4.37). The second category of significant difference was in Category 13, 'Teacher Solicits Information'. In 1986 the mean duration was 1.38 seconds (SD=1.55). In 1987 the mean duration was 22.50 seconds (SD=20.54). In the final year the mean duration was 7.88 seconds (SD=6.60). The third category that showed a significant difference was Category 18, 'Teacher Provides Unsolicited Opinion or Suggestions'. The mean duration was 64.43 seconds in 1986 with a (SD=57.60). The

Table 5-4

Comparison of Duration of Supervisor Conferencing Behavior in Seconds
for Participants Completing Conferences During All Three Years (*N*=8)

	1986-87 Data		1987-88 Data		1988-89 Data		
STACS Category	M	SD	M	SD	M	SD	*F*-value
1 Supervisor Supportive Behavior	1.33	1.21	8.25	7.48	22.50	14.87	9.55**
2 Supervisor Accepts or Uses Behavior	12.99	12.97	14.25	13.49	30.38	34.33	1.50
3 Supervisor Solicits Information	32.09	22.80	17.63	16.39	39.75	38.91	2.73
4 Supervisor Solicits Opinions or Suggestions	30.96	32.14	27.00	23.24	28.88	22.27	0.04
5 Supervisor Provides Solicited Information	162.94	95.28	258.75	146.85	198.38	141.05	1.33
6 Supervisor Solicits Opinions or Suggestions	1.00	2.83	2.63	7.43	5.63	12.67	0.93
7 Supervisor Provides Unsolicited Information	60.01	57.89	4.13	8.01	40.50	55.96	2.42
8 Supervisor Provides Unsolicited Opinions or Suggestions	45.04	41.86	55.50	36.04	45.75	84.58	0.10
9 Supervisor Non-supportive Behavior	0.00	0.00	0.00	0.00	0.00	0.00	N/A
10 Silence or Confusion	6.04	6.11	12.75	11.85	16.50	21.93	2.57

** $p \leq .01$; *$p \leq .05$

Table 5-5

Comparison of Duration of Teacher Conferencing Behavior in Seconds for Participants Completing Conferences During All Three Years (*N*=8)

	1986-87 Data		1987-88 Data		1988-89 Data		
STACS Category	M	SD	M	SD	M	SD	*F*-value
11 Teacher Supportive Behavior	1.43	2.66	4.50	3.59	6.38	4.37	4.58*
12 Teacher Accepts or Uses the Other's Ideas	8.69	11.38	10.13	7.68	33.00	44.61	2.12
13 Teacher Solicits Information	1.38	1.55	22.50	20.54	7.88	6.60	6.66**
14 Teacher Solicits Opinions or Suggestions	0.00	0.00	0.38	1.06	1.13	2.23	1.96
15 Teacher Provides Solicited Information	55.54	29.75	80.63	93.34	139.50	182.07	1.62
16 Teacher Provides Solicited Opinions or Suggestions	69.29	89.64	93.38	93.77	106.88	116.21	0.36
17 Teacher Provides Unsolicited Information	48.25	61.12	21.75	19.88	57.00	58.26	1.22
18 Teacher Provides Unsolicited Opinions or Suggestions	64.43	57.60	87.38	82.84	19.13	34.47	5.25*
19 Teacher Non-supportive Behavior	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Conference Time	601.38	181.32	721.50	238.80	799.13	316.57	2.24

** $p \leq .01$; *$p \leq .05$

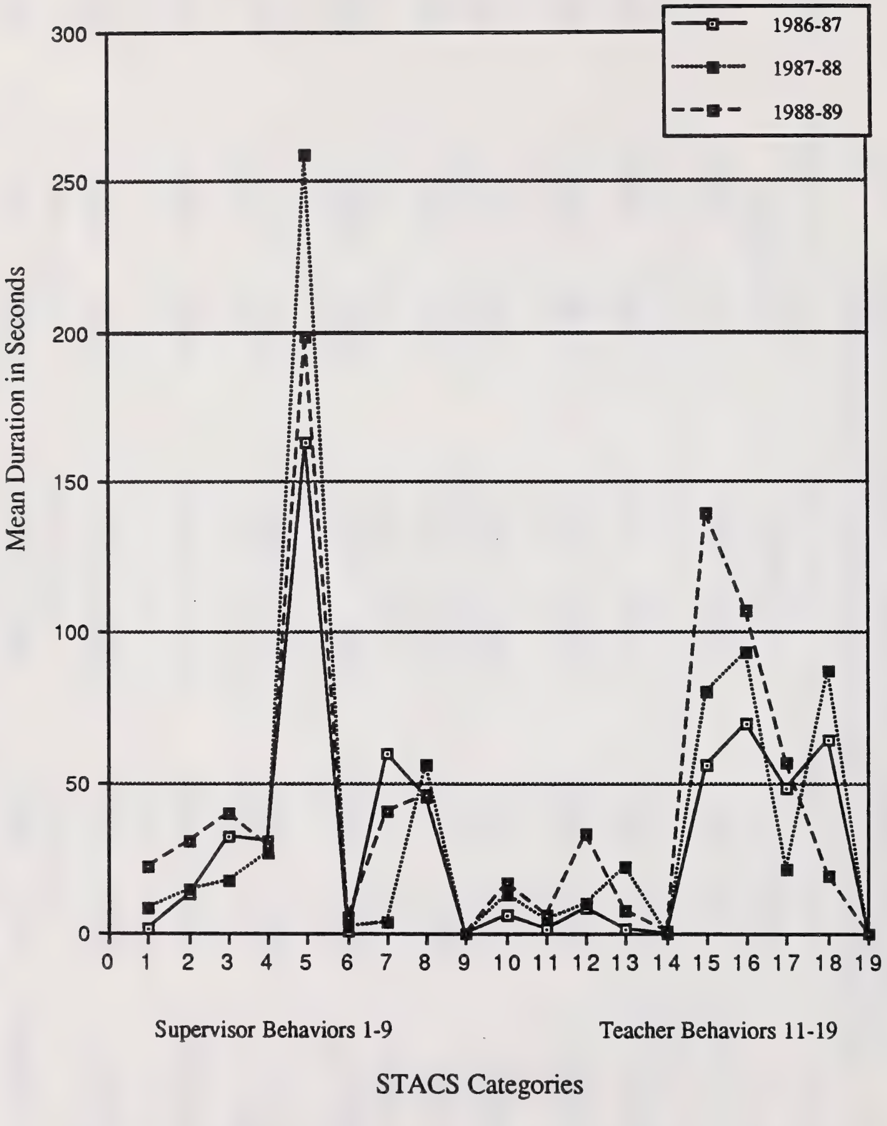


Figure 5-3: Duration of Teacher Conferencing Behavior in Seconds for Participants Completing Conferences During All Three Years (N = 8)

mean duration in 1987 was 87.38 seconds (SD=82.24), and in 1988 the mean duration was 19.13 seconds (SD=34.47).

Content of the Conferences

During the coding of the 1987 and 1988 post-observation conferences the coders were instructed to record the topics (i.e., teaching behaviors) that were discussed. These were listed, and are summarized in Table 5-6. It was noted that the majority of the topics discussed were in the areas of questioning and on-task behavior. In 1987-88 over 60 percent of the conferences topics were on questioning or on-task behaviors. In 1988-89 these two areas accounted for 45 percent of the topics discussed.

Discussion

The results noted between an untrained group and those persons completing the third year videotapes reflect the effect of the Model. Supervisors not trained in the clinical supervision approach to supervision typically spent a higher proportion of conferencing time giving 'Unsolicited Information' (Category 7) and very little time focusing on 'Providing Solicited Information' (Category 5). In these two areas there was a significantly lower proportion of the supervisor providing unsolicited information and a significantly higher percentage of the supervisor giving information that the teacher had requested. At the same time the supervisors in the research/evaluation project showed a significantly lower proportion of providing unsolicited opinion or suggestions. As a supervisor focuses more of the supervision cycle on providing observation information from classroom visits of concern to the teacher, rather than personally and independently deciding what should be observed, this enables the professional growth of the teacher. The lower proportion of supervisor unsolicited opinion or suggestions indicates that the supervisor is imposing less judgement on what is important, what is better, or how something should be handled. This does not mean that the supervisor's

Table 5-6

Summary of Topics Discussed During the Post-observation Conferences

	1987-88			
	A - D Group (*N*=14)	E - F Group (*N*=9)	G - H Group (*N*=10)	1988-89 (*N*=13)
Questioning:				
- general	2	1	1	1
- student answers	1	0	0	1
- who asked and who responds	4	2	5	2
- level of questions	3	1	0	0
- teacher response to	2	2	0	2
- how many	1	0	0	0
On-Task Behavior	7	4	1	5
Teacher Impact on Class	2	0	0	1
Lesson Introduction	1	0	0	0
Groups in Class	1	0	0	0
Teacher Movement in Classroom	1	2	1	2
Teacher-Student Interaction	1	0	0	3
Student-Student Interaction	1	0	0	2
Focus of Teacher (In Future)	1	1	0	0
Teacher Contact with all Students	1	1	0	1
Verbal Flow	0	1	0	0
Class Participation	0	1	0	0
Clarity of Intructions	0	1	0	0
Lesson Content	0	0	2	1
Language Spoken During Lesson	0	0	1	1
Teacher Use of Praise	0	0	0	2
None	1	0	0	0
	—	—	—	—
Total Topics Discussed	30	17	11	24

opinion is not important but it does allow the teacher to analyze the data and make his/her own judgements which fosters teacher professional growth. The supervisor soliciting the opinion of the teacher presumably promotes professional growth.

The other area of significant difference was 'Supervisor Supportive Behavior (Category 1). It would seem that supportive behavior would increase with training rather than decrease as the data indicates. However, Thorlacius (1980), who noted a similar trend (although not a significant difference), concluded:

> In the post-training conferences, because there was much greater attention paid to providing feedback to the teachers (as a result of a pre-conference) in the form of objective data and then soliciting the teachers' opinions relative to the feedback, the supervisors had little need to flatter the teacher (p. 34).

The decrease in supervisor supportive behavior indicates a shift from the typical supervisor behavior of reporting what went well (in the opinion of the supervisor) to supporting the teacher as he/she analyzes the instructional behaviors. This is consistent with the expectations of the Model.

The data for teacher behavior from the untrained group were not available but similar differences could be anticipated in the 'reciprocal' categories. The results do indicate a shift in conferencing behavior as a result of participation in the Model.

Interactive Effect

A second area that indicated changes in supervisor and teacher conferencing behaviors is the differences noted in the 1987-88 data compared to 1988-89 data. In 1987 the percent duration of 'Supervisor Provides Solicited Information' had accounted for an average of 38.10 percent of the conferences, whereas only 10.86 percent of the duration of the conference was spent in 'Teacher Provides Solicited Opinion or Suggestions' and 9.79 percent in 'Teacher Provides Unsolicited Opinion or Suggestions'. This indicated a situation in which more time was spent providing information and little time was spent analyzing and talking about the data or its implications. After each year of the research/evaluation project, information about the results was provided to the people involved in the Model. The Steering Committee could then use the information in the manner they deemed most appropriate. In 1988-89 the data indicated significant differences in six areas, including a decrease in the mean percent duration in 'Supervisor Provides Solicited Information', an increase in the mean percent duration of 'Teacher Provides Solicited Opinions or Suggestions' and a decrease in 'Teacher Provides Unsolicited Opinion or Suggestions'. The changes in these three categories indicate a change from the supervisor providing information to the teacher analyzing the information. The ratio of 'Supervisor Provides Unsolicited Information' to 'Teacher Provides' either 'Solicited' or 'Unsolicited Opinions or Suggestions' changed from a ratio of 2:1 in 1987-88 to 1:1 in 1988-89. The teachers were able to spend a more equal percentage of the conference discussing the data in comparison to the supervisor providing the data. This change is consistent with the goals of the Model and encourages the professional growth of the teacher.

The three other areas of significant difference between the 1987-88 and 1988-89 conferences were closely related. There was an increase in the mean percent duration in 'Supervisor Supportive Behavior', 'Supervisor Accepts or Uses the Other's Ideas', and 'Teacher Accepts or Uses the Other's Ideas' from 1987-88 to 1988-89. The increase was not great but it was statistically significant and indicates mutually accepting relationships. Even though there was an increase in the percentage of 'Supervisor Supportive Behavior' it was still significantly lower than the percentage evidenced in the untrained group.

Comparison of Change Over Three Years

There were eight people who completed a supervision cycle that was videotaped each of the three years of the research/evaluation project. This represents a great deal of commitment as this was a time-consuming and sometimes threatening activity. Many partners indicated that it was very difficult to arrange for the conferencing, let alone cope with the constraints of the videotaping.

The analysis indicates that there was a small but significant increase in the mean duration of 'Supervisor Supportive Behavior' over the three years of the project. In the reciprocal category of 'Teacher Supportive Behavior' the steady increase in mean duration was also small but statistically significant. The third area of difference was 'Teacher Solicits Information'. The mean duration was also not very great in any of the years but the teachers did ask for more information in the second year with less the following year; however, even the third year was higher than the first year. As both the supervisor and teacher display genuine supportive behavior a more trusting open relationship can develop with the teacher being more willing to seek information from the supervisor.

Content Discussed

Finally of interest are the topics discussed in the post-observation conferences. There may be many reasons for the high proportion of conferences dealing with questioning and on-task behaviors. These two areas are relatively easy to collect data on, and they may be considered somewhat safer areas for the teacher to risk in an observation. Perhaps these focuses are a direct result of the topics dealt with in the training sessions; the supervision cycle presents an opportunity to practise the skills discussed. It was noted that the proportion of topics dealing with questioning and on-task behavior was lower in 1988 -89 although they were still the two highest areas. As the supervision cycle is repeated several times with a given supervisor and teacher it is possible, if not probable, that the areas of focus would begin to change and include more individual and more difficult areas. As the level of trust builds between a supervisor and teacher the topics may shift to more problematic areas.

Summary Statement

The analysis of the data indicates that the Model did have an impact on the supervisor and teacher conferencing behaviors. The major changes over the various measures involved a shift from the supervisors, on their own, deciding what would be observed and recorded and then imposing a judgement on the teacher, to creating an environment in which the teacher was an active participant in the determination of what would be observed in a classroom visit by a supervisor and then accepting a major responsibility for analyzing the meaning of the data and the alternatives to be pursued. The professional teacher then becomes more autonomous within the school community -- realistically autonomous, not in the sense of being autocratic, but in the sense that the classroom and the school continues to be an environment of learning for the teacher and the supervisor as well as for the students.

CHAPTER 6

THE CHANGE PROCESS
(Research Question 4)

R. L. Butt, M. L. Greene, M. J. Pollard, C. R. Purvis

This chapter presents the results of the most comprehensive of the research questions: What are the implications of the change process as exemplified by the Model for Teacher Supervision and Evaluation Project? Specific questions included:

1. How was the implementation process perceived by project participants?
2. What were the effects of the process on evaluation practices and policies?
3. What are the implications of the change process and project outcomes for other school jurisdictions?

As described in Chapter 3 the methods were many and varied, and included surveys, interviews, journals, participant observations and in-depth case studies of schools and 'pockets of activity'. Because of the amount and richness of the information obtained from the case studies, a more detailed and extensive presentation of the case studies is presented in a companion document (Butt, Greene, Pollard & Purvis, 1989). This chapter presents a summary analysis and interpretation of all the data which addressed research question #4 over the three years of the project.

Surveys of Participants

Pre-Project Information

In the Fall of 1985 (prior to the implementation of the Model) a survey had been administered to all teachers and administrators in the Medicine Hat school system; 281 respondents completed the survey. A second survey was administered in October of 1985 to an administrative group of 59 persons attending their first session of training in instructional supervision and evaluation, to ascertain their perceptions of supervision and evaluation with respect to current and ideal practices. A third survey was administered to

102 persons in the District who were involved in conducting supervision and evaluation, to discover their perception of strategies commonly used by evaluators.

The tables resulting from pre-project analysis are presented as Tables D, E and F in Appendix C. Generally speaking, prior to the implementation of the Model for Supervision and Evaluation, that is in the Summer and Fall of 1985, there was considerable variety of opinion about supervision and evaluation. They were seen to be distinct, but important activities. Supervision especially was seen to be an important factor in improving teaching, but existing supervision practices were seen to be less than ideal, and there was little consensus about what constitutes effective supervision. Only 22 percent of the respondents agreed that most supervisors were well qualified and effective. Supervisors considered to be effective were not perceived to have common characteristics; just over one-half (58%) of the sample agreed that effective supervisors clearly tell teachers what was good and bad in a lesson, whereas almost one-third of the teachers did not agree with this statement. A large majority (86%) of the teachers perceived supervision to be an important factor in improving teacher effectiveness but only 69 percent agreed that supervision should occur on a regular basis. The implementation of the Model was seen to be primarily due to the impact of outside pressures, with only 14 percent of the 281 teachers indicating that it was an attempt to improve teaching.

There was strong agreement that certain evaluation strategies were essential. For example, there was almost universal agreement that supervisors should involve teachers in deciding what is to be observed; however in 1985 this was perceived to occur never or seldom, and often or usually, by almost equal percentages of respondents. The recording of subjective feelings by supervisors should occur rarely, based on the fact that only 12 percent of the respondents agreed that it should occur usually or often; however, 63% of the respondents indicated that it did occur usually or often. Eighty-three percent of the administrators agreed that supervisors usually or often tell teachers what was good or bad in an observed lesson, but only 38 percent agreed that this should be the case. All agreed that supervisors should meet with the teacher to discuss the observation, but only 63 percent indicated that that usually or often occurred.

"Giving opinions" was seen to be less desirable than the existing practice, whereas "give praise and encouragement" was seen to be more ideal. There was a strong indication (91%) that administrators believed supervisors should modify their objectives to accommodate teacher priorities, but only 17 percent indicated that this did occur. Finally, ideally, supervisors should apparently listen more than they talk during a conference; only 12 percent indicated that this was the existing practice.

With respect to supervision conferences there was strong agreement from the 102 persons who completed the survey that meeting with the teacher and finding out what the teacher expected were two essential aspects of the pre-conference. With respect to the observation process, there appeared to be little agreement on elements which were essential, desirable or acceptable. Disagreement was particularly evident on items suggesting the recording of subjective data. Of those variables referring to post-observation activities the majority of supervisors considered several to be essential: "meeting with the teacher following the observation" (94%), "giving the teacher a copy of the evaluation report" (90%), "giving the teacher the opportunity to respond to the report in writing" (78%), and "giving the teacher recourse to formal appeal" (86%).

Participants' Perceptions of Supervision and Evaluation

A survey asking members of the research/evaluation project sample for their opinions about the Model for Teacher Supervision and Evaluation and about District supervision and evaluation policies, was administered in January of 1987, in November of 1987 and in October of 1988. Fifty-seven (97%) of the 59 participants completed the survey in the first year; 52 (94%) of the 54 participants in 1987 completed the survey; 31 (84%) of the 37 1988 participants completed the survey. The 1988 participants' perceptions about supervision and evaluation policies are presented in Table 6-1. In

Table 6-1

Project Participants' 1988 Opinions About Supervision and Evaluation Policies and Practices (*N* = 31)

Item	Group	N	% of Responses: Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M	SD
I am well informed about the Supervision/Evaluation policy in this district	A-D	12	0	0	8	17	75	4.67	0.65
	E-F	8	0	0	12	75	12	4.00	0.54
	G-H	11	0	0	0	82	18	4.18	0.40
The administrators in this school actively support the Supervision/ Evaluation policy in this district	A-D	12	0	0	8	42	50	4.42	0.67
	E-F	8	12	0	0	75	12	3.72	1.16
	G-H	11	0	0	0	54	46	4.46	0.52
I agree with the intent of the Supervision/Evaluation policy	A-D	12	0	0	0	75	25	4.25	0.45
	E-F	8	0	0	0	88	12	4.12	0.35
	G-H	10	0	0	0	90	10	4.10	0.32
Teachers in this school district should be supervised on a regular basis	A-D	12	0	0	17	50	33	4.17	0.72
	E-F	8	0	12	0	88	0	3.75	0.71
	G-H	11	0	9	0	82	9	3.91	0.70
Most supervisors in this district are well-qualified and are effective	A-D	12	0	0	33	58	8	3.75	0.62
	E-F	8	12	12	50	25	0	2.88	0.99
	G-H	11	0	0	27	64	9	3.82	0.60
Supervision activities can improve teacher effectiveness	A-D	12	0	0	8	67	25	4.17	0.58
	E-F	7	0	0	0	57	43	4.43	0.54
	G-H	11	0	0	0	73	27	4.27	0.47

* Means based on a 5 point scale where 1=Strongly Disagree, 5=Strongly Agree

general, mean responses to all questions were well into the "agree" to "strongly agree" categories. Responses from the 1985 (A - D) group were particularly positive, except on whether supervision activities can improve teacher effectiveness and on whether teachers should be supervised on a regular basis. Table 6-2 presents a comparison of the 1986, 1987 and 1988 opinions of those participants who had been in the project two or three years; those who were "undecided" or neutral have not been included in Table 6-2. (Note that because Table 6-2 includes only those persons for whom all data were available, percentages may be slightly different from those obtained by adding figures in Table 6-1). Again respondents generally agreed with the statements. Least agreement was apparent on whether supervisors were qualified and effective, but the percentage of those in agreement had generally increased over time. It must be noted however, that with small numbers in each group, one person's response could change percentages substantially.

The second half of the survey asked the participants for their opinions about the Model for Teacher Supervision and Evaluation. A comparison of the 1986, 1987 and 1988 results is presented in Table 6-3. For the most part there was strong agreement from participants that they were informed about the Model, that the administration supported the Model and that they agreed with its intent. There was considerably less agreement that there was sufficient opportunity to practice and discuss the Model or that resources were adequate. Perceptions of specific groups had changed little over time, but the newest group (G - H) appeared to find resources and time somewhat more adequate than the other groups.

Perceived Involvement in and Impact of the Model

Two open-ended questions on the survey administered in October of 1988 asked participants to describe as specifically as possible the extent to which they had been involved in the Model and to describe the effects of their participation on themselves as

Table 6-2

Comparison of Project Participants' 1986, 1987 and 1988 Opinions About Supervision and Evaluation Policies and Practices (*N*=10 for A-D group; 8 for E-F group; 10 for G-H group)

		% of Responses					
		1986 Opinions		1987 Opinions		1988 Opinions	
Item	Group	SD or D	A or SA	SD or D	A or SA	SD or D	A or SA
I am well informed about the Supervision/Evaluation policy in this district	A-D	0.0	90.0	0.0	100.0	0.0	90.0
	E-F	12.5	75.0	0.0	87.5	0.0	87.5
	G-H	----	----	0.0	77.8	0.0	100.0
The administrators in this school actively support the Supervision/ Evaluation policy in this district	A-D	10.0	70.0	10.0	80.0	0.0	90.0
	E-F	12.5	62.5	25.0	75.0	12.5	87.5
	G-H	----	----	0.0	90.0	0.0	100.0
I agree with the intent of the Supervision/Evaluation policy	A-D	0.0	100.0	0.0	100.0	0.0	100.0
	E-F	0.0	87.5	0.0	100.0	0.0	100.0
	G-H	----	----	0.0	100.0	0.0	100.0
Teachers in this school district should be supervised on a regular basis	A-D	0.0	90.0	0.0	100.0	0.0	90.0
	E-F	12.5	75.0	12.5	87.5	12.5	87.5
	G-H	----	----	0.0	70.0	10.0	90.0
Most supervisors in this district are well-qualified and are effective	A-D	20.0	50.0	0.0	70.0	0.0	70.0
	E-F	37.5	25.0	0.0	75.0	25.0	25.0
	G-H	----	----	0.0	50.0	0.0	80.0
Supervision activities can improve teacher effectiveness	A-D	0.0	95.0	0.0	100.0	0.0	90.0
	E-F	0.0	92.9	0.0	100.0	0.0	100.0
	G-H	----	----	0.0	90.0	0.0	100.0

Table 6-3

Comparison of Project Participants' 1986, 1987 and 1988 Opinions About the Supervision Training Model (*N* = 10 for A-D group, 8 for E-F group, 10 for G-H group)

		% of Responses					
		1986 Opinions		1987 Opinions		1988 Opinions	
Item	Group	SD or D	A or SA	SD or D	A or SA	SD or D	A or SA
I am well informed about the Supervision Training Model being implemented in Medicine Hat	A-D	0.0	100.0	0.0	100.0	0.0	90.0
	E-F	0.0	87.5	0.0	100.0	0.0	100.0
	G-H	—	—	0.0	80.0	0.0	100.0
The administration in this school actively supports the Supervision and Training Model	A-D	0.0	70.0	10.0	80.0	0.0	87.5
	E-F	0.0	75.0	25.0	75.0	12.5	87.5
	G-H	—	—	0.0	90.0	0.0	100.0
I agree with the intent of the Supervision Training Model	A-D	0.0	100.0	0.0	100.0	0.0	100.0
	E-F	0.0	100.0	0.0	87.5	0.0	87.5
	G-H	—	—	0.0	90.0	0.0	100.0
There is sufficient opportunity to practice techniques and skills taught in the Supervision Training	A-D	70.0	0.0	60.0	30.0	50.0	10.0
	E-F	87.5	0.0	75.0	25.0	75.0	12.5
	G-H	----	----	10.0	60.0	10.0	40.0
There is sufficient opportunity for discussion about the Supervision Training	A-D	40.0	20.0	50.0	20.0	30.0	10.0
	E-F	75.0	12.5	62.5	25.0	50.0	25.0
	G-H	----	----	0.0	60.0	20.0	60.0
Resources/time are adequate for implementation of the model	A-D	70.0	0.0	60.0	10.0	100.0	0.0
	E-F	87.5	0.0	87.5	0.0	87.5	12.5
	G-H	----	----	20.0	30.0	50.0	30.0

teachers. All but one person responded to the first question; five of the 31 respondents did not answer the second question.

Five categories emerged from the responses to the question about the amount and kind of participation in activities relating to the Model; they are listed in order according to the number of responses given in each category:

1. Teachers who had completed the minimum number of cycles (15 responses). Several quotes from these teachers follow:

   > As part of the sample study I have participated in making my videotapes for analysis and for that I have worked with a staff member, primarily in the supervisor's role. My involvement has not gone beyond that because our staff, as a whole has not been committed to the Model . . . .
   >
   > I went through the training program (all the sessions at the School Board Office) and completed the required assignments that went along with it.
   >
   > I have gone through the program and have tried to fill all the assignments. I have worked through some cycles.

2. Administrators (principals, vice principals and department heads) engaged in activities such as supervision and evaluation of staff members as part of their regular job description (5 responses). These individuals had participated in the Model in a supervisory or evaluative capacity. Generally they had completed more than the minimum number of cycles, the majority of which were for teacher evaluations. Many of these administrators were involved in the Model at its beginning and continued to be involved in many aspects of it since. One was "co-chairman of the original steering committee for the project", and has "been on the front line of involvement ever since". Another administrator "actively encouraged the program and covered several classes so that the teacher could be actively involved".
3. Teachers and/or administrators who had accepted additional responsibilities of an administrative nature dealing specifically with the implementation of the Model, such as organizational and steering committees in either the District or the school (4 responses). These were teachers who were enthused by the project and had "been helping to

coordinate the program within the school by providing release time and arranging substitutes", or had "worked on the coordinating committee at [our school]".

4. Teachers expressing enthusiasm for the project, having shown interest beyond the basic requirements and completing a number of cycles that reflected this interest (more than 4/year) (3 responses). "I have done a total of about 10 cycles since being involved in the Model. In an informal way, discussion of the Model and our teaching techniques, problems and solutions takes place on a weekly basis".
5. Teachers who expressed negative comments and had participated very little in Model activities (3 responses). The issues of time, isolation and lack of communication were mentioned by these three teachers.

The majority of the responses to the question about the effects of participation in the Model were positive and centered around the increased awareness that teachers felt about the teaching process as a result of having participated in the Model. Included in this increased awareness were heightened sensitivity to students' learning and behavior, "classroom preparation", and "lesson presentation" resulting in "improved interaction with students" and improved "personal teaching styles". The following comments exemplify these beliefs:

> I'm convinced I am getting better as a teacher through involvement as a supervisor.
>
> I have been stimulated to think more about classroom procedures and methods of delivery.
>
> As a teacher the Model has helped me to become a more effective and precise teacher. It has also enabled me to gain skills for observation of classrooms and sharing of ideas.
>
> I am much more conscious of my role as a teacher. I tend to prepare better and more stimulating lessons.
>
> It has made me more aware of the need for and process available to improve my skills as a teacher. It has increased my desire to improve my skills.

It was suggested that an increase in professionalism was also an effect of participation in Model activities. A desire to improve teaching skills seems to have been instilled in some of the respondents and the idea that "most improvement can come from peer coaching" was expressed. "Professional reading [had] increased - looking for advice, suggestions, techniques", as well as the "continual practice of self-evaluation on personal teaching practices" and the "development of a broader scope of knowledge on how to improve teaching."

Another beneficial effect of participation in the Model was seen to be an increase in interaction among staff members. The common experiences provided by peer supervision and the training sessions seemed to provide new "avenues for discussion" and "more confidence in discussing problems with a colleague". Some participants felt less threatened by "the prospect of administration visits" and believed that the Model had provided "better and more understood methods of evaluation".

Although the majority of responses to this question were positive, there were negative comments expressed as well. One respondent felt that "very little" effect had been noticed on the individual teacher; another felt that "it hadn't affected him to any great extent". Frustration with continual and inevitable partner changes were evident in the following quotation:

> I have found it difficult to establish any type of relationship with a colleague on this project and get into the more 'risky' aspects of teaching techniques. Each year it has seemed like a start from square one with the rather more straightforward observations and it has been frustrating. It is necessary to work with one colleague for a time to build up a large degree of trust and collegiality.

Non-Participants' Perceptions of the Model

During the Spring of 1988, surveys were administered to the 148 persons in the system who had not yet participated in the project training, to ascertain their opinions about the Model; 95 (64%) of the group responded; 35% were male, 65% were female; 45% were K-6 teachers, 42% were Grade 7-12 teachers, and the remaining 13% were librarians, counsellors and resource persons. Many of the respondents wrote lengthy comments and even letters to explain their responses. Others phoned to indicate why they were not in the project, or why they preferred not to respond to the questionnaire. Questionnaire results are presented in Table 6-4. As a group, these teachers did not perceive themselves to be as well informed about the training model as were participants in the project. The mean response for non-participants was 3.36 whereas even the newest group in the training project had a higher mean response for that question in both 1987 and 1988. However, the non-participants perceived the administrators in the school to be actively supporting the Model to at least as great an extent as most participants in the Model. The non-participants appeared to be somewhat less convinced that teachers should be supervised on a regular basis, and also appeared less convinced that supervision activities can improve teacher effectiveness.

Almost one-half of those not participating in the Model (as of January, 1988) indicated their intent to do so (and in the Fall of 1988, approximately 60 new participants joined the project). Only 14 percent indicated that they would prefer not to participate; the remaining 38 percent were unsure or wanted certain things to happen before they decided to participate in the project. When invited to make other comments, 29 (30%) of the respondents did so. Their comments ranged from short comments which indicated a perceived lack of information to a few very lengthy comments indicating a considerable degree of resentment toward the Model. Three themes appeared to emerge in the negative comments: one was a questioning about the impact of the Model in relation to the time and commitment required; for example, ". . . there is tremendous political pressure to participate, and yet a substantial amount of evidence that it is not being taken seriously by those who are supposed to be benefiting from it". Also, several persons expressed concern about the time they perceived would be required in addition to their already heavy commitments. A second theme was the relationship between the Model and evaluation; for example: "The information collected from this can be used against the teacher". The third

Table 6-4

February 1988 Perceptions of the Supervision and Evaluation Model of Non-Participating Teachers (N=95)

		% of Responses *						
Item	N	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M**	SD
I am well informed about the Supervision Training Model being implemented in Medicine Hat	94	5	16	24	46	9	3.36	1.02
The administration in this school actively supports the Supervision Training Model	94	0	2	13	54	31	4.14	.71
I agree with the intent of the Supervision Training Model	94	0	4	29	60	7	3.70	.67
Teachers in this school district should be supervised on a regular basis	94	1	9	28	52	11	3.63	.83
Most supervisors in this district are well-qualified and are effective	94	2	7	48	37	5	3.36	.79
Supervision activities can improve teacher effectiveness	95	1	4	20	65	9	3.78	.72

* may not add to 100% due to rounding

** means based on a 5 point scale where 1=Strongly Disagree, 5=Strongly Agree theme, expressed by only two persons, was that the money should have been spent elsewhere, for example, on ". . . resolving the many problems which reduce a teacher's effectiveness and a student's opportunities for meaningful learning experiences".

Changing Perceptions Based on Survey Data

Prior to the implementation of the Model most Medicine Hat teachers believed that supervising teachers was a good idea; however there was little agreement as to what constituted effective supervision and only 22 percent of the teachers believed that supervisors were generally well qualified and effective. By 1988 that figure had climbed to 58 percent. Table 6-5 compares responses on items that were common on various questionnaires over the years of the project. Approximately 87 percent of the participants agreed that teachers should be supervised regularly, compared with only 69 percent prior to the implementation of the Model. Increasing numbers believed that supervisors were well qualified and effective; non-participants were less convinced of the value of regular supervision and believed themselves to be less informed about the Model and fewer of them agreed with the intent of the Model. Time and the opportunity to discuss and practice the Model continued to be issues even in the third year of the Model, but they were less problematic for the newest G - H group.

It appears that most participants did not consider themselves to be heavily involved in the Model. One-half of the 30 participants who were interviewed following the observation perceived that their involvement in the Model was minimal, in the sense that they had done only the 'required' number of supervision cycles. Thirteen (43%) of the participants stated that they had done far more cycles than required either as an administrator or as a teacher; three had done far less. Nevertheless, a large majority of the participants believed that the Model had had a significant positive impact on their thinking about teaching and on their teaching practices.

Table 6-5

Changing Perceptions of Medicine Hat Teachers

	% Agreeing			
	Pre-Project Responses Fall /85	Non-Participants January /88	Participants January /87	Participants Fall /88
	N=281	*N*=95	*N*=57	*N*=31
Most supervisors are well qualified and effective	22	42.6	40.0	58.1
Supervision can improve teaching effectiveness	86	74.7	94.7	96.7
Teachers should be supervised regularly	69	62.1	83.9	87.1
Am informed about supervision training Model	--	53.7	84.2	96.8
Agree with intent of Model	--	66.3	96.5	96.8
School administration supports Model	--	84.2	80.7	90.3
Sufficient opportunity to discuss Model	--	--	38.6	32.3
Sufficient Opportunity to practice Model	--	--	21.1	22.6
Time is adequate to implement Model	--	--	8.8	12.9

Stages of Concern Surveys

The Stages of Concern survey was administered to the members of the research sample at the same time as the perceptions surveys each year . In 1986, 56 (94.9%) of the 59 participants completed the survey; in 1987, 52 (96%) of the 54 participants completed the survey, and in 1988, 31 (84%) of the 37 participants in the sample completed the survey. This survey assessed the level of participants' concern about aspects of the Model at various stages of the implementation. Each person's survey was scored to result in a score for each of the seven stages identified and discussed earlier: awareness, informational, personal, management, consequence, collaboration and refocusing. (For a description of the meaning of each of the concerns refer to Figure 3-2 in Chapter 3).

The 1988 results for the total sample are presented in Figure 6-1, and by group in Figures 6-2 to 6-4. It appears from Figure 6-1 that the overall profile of the group changed little, that consequences and refocussing concerns continued to be low, and awareness, personal and management concerns remained high. However, because Figure 6-1 presents average scores from participants who had been in the project for varying lengths of time, Figures 6-2 to 6-4 may be more meaningful. These figures present the results over the three years of the project for the 1985 (A - D), 1986 (E - F) and 1987 (G - H) groups respectively. Although the profiles remained similar from year to year and although none of the changes were significant, there appears to be a trend in all groups to have less need for information, less concern about personal consequences of involvement in the Model and a slight shift in the G - H group toward the concerns typical of the later stages of implementation. According to Hall and Hord (1987) this shift begins to occur only after earlier concerns are resolved, and often requires several years to begin.

Participants' Sense of Efficacy

It had been hypothesized that teachers' beliefs about the abilities and effectiveness of teachers to effect certain outcomes might change as they participated more in the Model

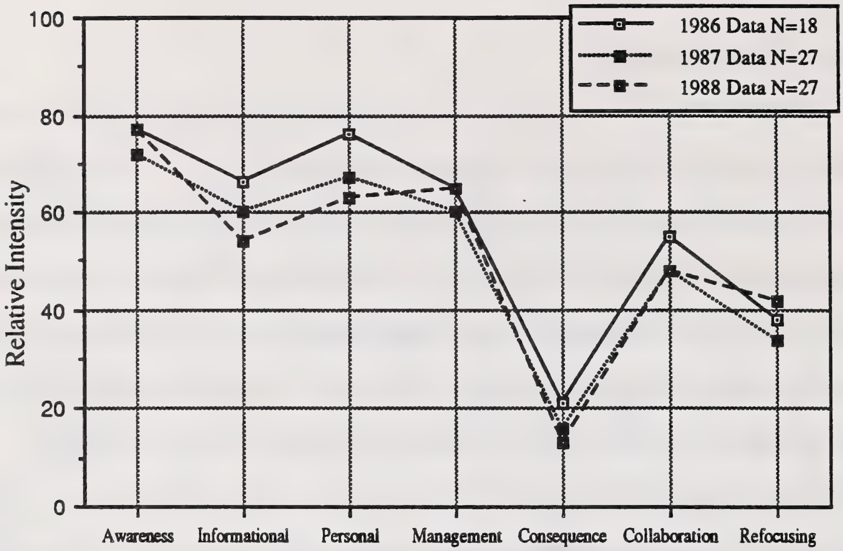


Figure 6-1: Scores of All Participants on Stages of Concern Survey by Year of Project

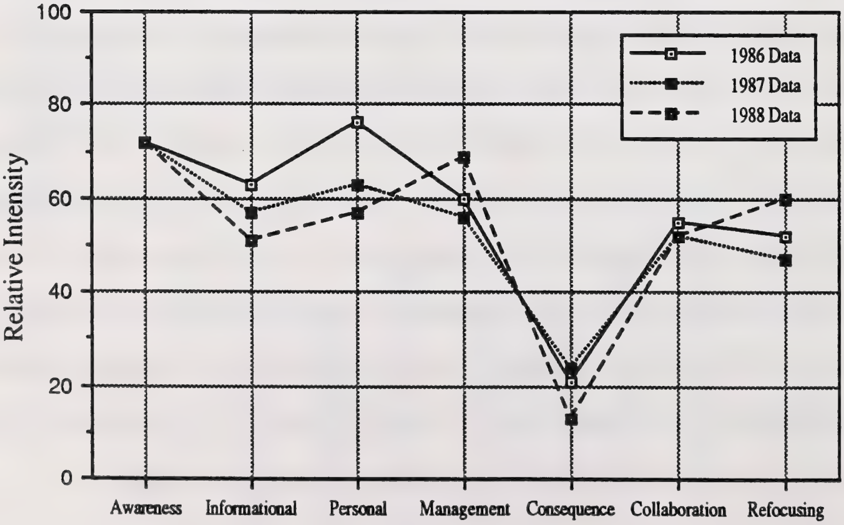


Figure 6-2: Scores of A-D Participants on Stages of Concern Survey by Year (N=10)

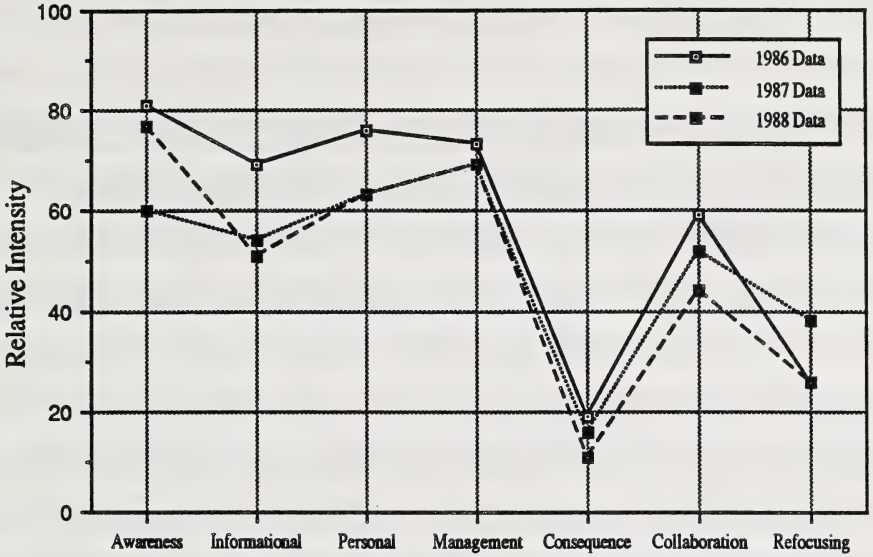


Figure 6-3: Scores of E-F Participants on Stages of Concern Survey by Year (N=8)

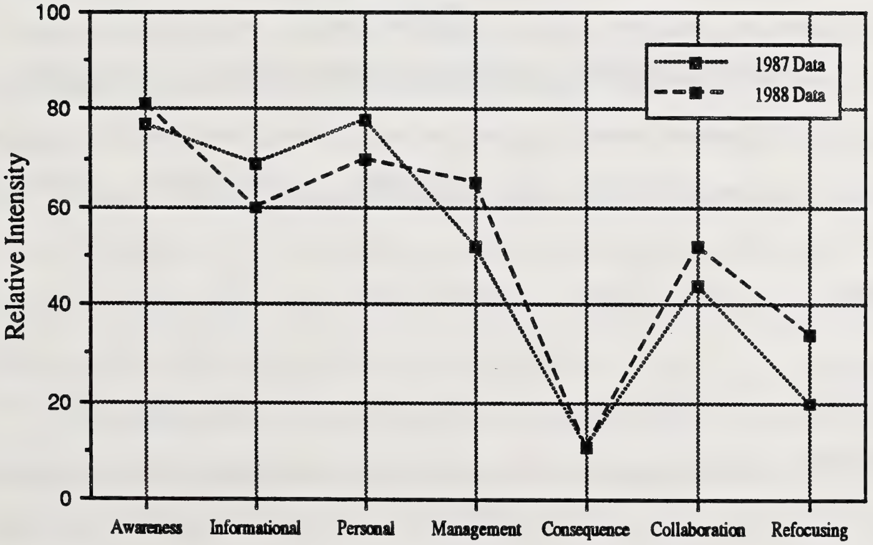


Figure 6-4: Scores of G-H Participants on Stages of Concern Survey by Year (N=10)

for Teacher Supervision and Evaluation. Accordingly, a Sense of Efficacy scale was administered during all three years of the research/evaluation project. The scale assesses personal efficacy (simply stated, a belief in one's own ability to effect student learning) and teaching efficacy (a belief that teachers in general can effect student learning). The results are presented in Table 6-6; mean scores are based on a 1-5 scale where 5 is the most positive response. It is apparent from Table 6-6 that participants have stronger beliefs in their own abilities than in the abilities of teachers in general to effect certain outcomes. Also, it appears that the longer the persons had been in the Model, the higher the personal and teaching efficacy beliefs were. However, numbers are small, differences were *not* statistically significant and results should be interpreted with caution. These results may mean that participants developed a greater sense of efficacy as they progressed through the project; they may mean that the groups were different, or they may mean nothing at all.

Table 6-6

Summary of Participants' 1988 Sense of Efficacy Scores by Year in Project

	A-D Group			E-F Group			G-H Group			Total Group		
Variable	N	M*	SD	N	M*	SD	N	M*	SD	N	M*	SD
Personal Efficacy	11	4.77	.43	8	4.64	.62	11	4.41	.62	30	4.60	.56
Teaching Efficacy	12	4.08	1.26	8	3.45	1.10	11	3.43	.74	31	3.69	1.07

* based on a 5 point scale where 5 is the most positive response

Interviews, Journals, Meetings and Observations

Participants' Perceptions of Their Participation in and Impact of the Model

After each of the classroom observations during the Fall of 1988, 35 of the 37 participants participated in a brief interview during which they were asked how many times they had participated in a supervisory cycle, either by being observed by an administrator or by another teacher, or by observing another teacher.

The quantitative analysis of the interviews is presented in Table 6-7. Almost one-half of the participants (16/35) stated that they had been observed by an administrator as part of a supervision cycle. The range of those 16 responses was from one to six observations. The mean for all 35 responses, including those who had not been observed by an administrator, was 1.17, with a median of zero. When analyzed by groups, it was found that the number of observations in the A - D group, by administrators, was slightly higher than in the other groups, ranging from a low of zero to a high of six, with a mean of 1.71 and a median of 1.50. For the E-F group, the range was from zero to two, the mean was .71 and the median was 1.00. Although there was a range from zero to five for the G - H group, and a mean of .86, the median for this group was the lowest of all groups at 0.00. However, it must be remembered that the Model was introduced in the Fall of 1985 to the A - D group; the E - F group did not begin training sessions until the end of 1986 and the G - H group began near the end of 1987, and so had been involved in the Model only about six to eight months at the time these data were collected.

When questioned as to the actual number of times they had been observed in the past year only, the G - H group reported the most activity with a median of 2.50 observations compared to the A - D and the E - F groups who reported medians of 1.50 and 1.00 respectively. If one were to combine the number of times the participants had been observed by an administrator with observations by another teacher, it would appear

Table 6-7

Participants' Assessments About Their Participation in
Supervision Cycles (Fall, 1988)

	Group	N	Med.	Range	M	SD
Number of times observed by an administrator since beginning of project, as part of cycle	All	35	0	0-6	1.17	1.70
	A-D	14	1.5	0-6	1.71	2.02
	E-F	8	1.0	0-2	0.71	0.75
	G-H	15	0	0-5	0.86	1.61
Times observed by another teacher since beginning of project	All	35	3.0	0-12	3.44	2.83
	A-D	14	3.0	0-6	3.23	2.09
	E-F	8	6.0	0-12	5.43	4.83
	G-H	15	2.5	0-5	2.64	1.65
Times observed in past year	All	35	2.0	0-5	1.97	1.56
	A-D	14	1.5	0-3	1.57	1.02
	E-F	8	1.0	0-5	1.71	2.06
	G-H	15	2.5	0-5	2.50	1.70
Times observed another teacher since beginning of project	All	35	3.0	0-45	7.00	8.71
	A-D	14	11.0	0-45	12.50	11.75
	E-F	8	4.0	0-8	4.43	2.76
	G-H	15	3.0	0-6	2.79	1.25

that the participants averaged better than four cycles since the project had begun, with many doing more and some doing few or none. In the fall of 1987 the mean number of times participants had been observed as part of a supervision cycle, was 1.44. Thus it appears that the average number of cycles had increased overall. However, the desirable number of four cycles per year, as stated by the participants in 1987, had not yet been reached.

Generally, there appeared to be far more observations, as part of a supervision cycle, by other teachers than by administrators; the mean for all groups was 3.44, with the E - F group reporting a mean of 5.43 observations. A separate question asked how many of the observations were a follow-up to a previous cycle; 30 percent of the participants indicated that they were. Interestingly, the number of times the participants observed another teacher was considerably higher than the number of times they were observed; the median was 3.0, the mean 7.0. In part this may have been due to the high average (12.5) from the A - D group, many of whom were administrators who may have been observing teachers not in the sample; in part it may have been that observations other than those occurring as part of a supervision cycle were included in the responses.

Perceived Impact. During the 1988 five-minute interviews, participants were asked three open-ended questions about their participation in the Model: teaching strengths they had identified through involvement in the Model, areas they had identified that they would like to improve, and one way in which the Model had had an impact on their teaching. The teachers identified many behaviors, activities and strategies that were revealed to them through participation in the supervision process as individual strengths, the two most evident being questioning and maintaining on-task behavior among their students. Several of the teachers had identified the ability to involve their students in classroom activities, and the rapport that they shared both with their students and with their colleagues. Frequently, rather than identifying specific strengths, respondents suggested that it was refreshing to hear an observer say: "I never thought of doing it that way", or that "the process itself has provided a structure for collegial support and assistance", and "has provided opportunities to make changes in a way that is not threatening to teachers". Another teacher believed that "teachers evaluating other teachers is a strength" in itself, and that the "chance for teachers to share ideas", "talk about teaching" and improve as a result was the most positive aspect of the Model.

It was suggested in the interviews that although these identified strengths were probably present before their involvement in the Model, the teachers were made more aware of their existence through participation. Other more specific strengths such as teacher movement in class, organization of lessons, self and students, and the use of encouragement and positive feedback, were also identified. There seemed to be the general sense that although there was an increase in awareness of personal strengths, there was also a feeling that the deeper, more important concerns of teachers were not yet being addressed, and it was suggested by one teacher that "this is where the Model is falling short".

As well as identifying personal strengths through the use of the Model, the teachers also felt there were areas for improvement that had been identified by the supervision process. Interestingly enough, the two that were mentioned most often were once again, questioning and on-task behavior, suggesting that these two behaviors were either thought of as being of primary importance or had perhaps been discussed to the greatest extent during the training sessions. Other specific areas identified for improvement were new ways to present materials, increasing student-directed activity, classroom management, improving classroom discussions through positive reinforcement and effective feedback, and lengthening wait time. More abstract concerns were also acknowledged. Several teachers expressed a desire to become more aware of the feelings and problems of students affecting their classroom performance and several others were interested in increasing their knowledge of learning and teaching styles.

Some comments were made suggesting that it had become very difficult to progress after having "done all the basics like time-on-task and questioning". These teachers were feeling at a "dead-end in terms of what to look for next". There was a sense that further guidance was required from administration which might suggest that some of the teachers had not accepted ownership of the Model in order to adapt it to individual, personal needs. Lack of time could also have been a factor and having greater direction from administration would lessen the amount of time required to develop focuses for cycles.

The perceived impact that the Model had had on various teachers varied from "very positive" to "not much of an impact"; however the majority of teachers interviewed believed that the Model had "increased awareness". More specifically, some teachers believed their awareness of classroom management, the learning/teaching process, personal teaching styles (strengths and weaknesses), lesson structure, and the effect on the children in the classroom, had been enhanced. An administrator stated that through the use of the Model he had "had many opportunities to observe classrooms. Just by visiting other classrooms and observing other teachers" he felt he had been "able to enhance his own teaching skills". One teacher felt "more comfortable with people in the classroom" in part as a result of the Model but also from involvement with other teachers. "It [the Model] brings staff together working toward a common goal". Another teacher believed a "better understanding of the job for the betterment of . . . students" had been one impact of the Model "because I feel better about myself and my job. I now have a broader scope and new ideas for teaching because of visiting other classrooms". There was a general sense of greater reflection about and appreciation for what happens in classrooms, and the complexities of teaching.

Summary Comment. In spite of the fact that the participants spoke of many specific strengths and weaknesses of which they had become aware, of having more opportunities to observe other teachers, of being more cognizant of their own and others' teaching styles and strategies, of sharing ideas, and so on, when asked to rate the extent to which the Model had actually been implemented 57 percent of the respondents gave a rating of 1 or 2 on a 4-point scale where 1 was 'to a small extent' and 4 was 'to a large extent' (see Table 6-8). However, they appeared to have increased confidence in their ability to implement the practices of the Model -- the mean had increased from 2.45 to 3.19 -- and they appeared to be more optimistic that the practices would actually be implemented.

With respect to specific outcomes (Table 6-9), the Model was seen to have had a somewhat greater impact. It was seen to be particularly effective as a mechanism for conducting fair and informed evaluations, for sharing ideas and facilitating teacher communication, and for improving the supervision process; mean responses for all of those items were greater than 3.00. It was seen to be least effective as a means for enhancing the District climate.

Project Administrator Perceptions

Interviews were conducted with the senior officials responsible for the implementation of the Model (the Superintendent, the Associate Superintendent, and the Coordinator, Program Monitoring and Evaluation) in the Fall of 1986, primarily for the purposes of becoming familiar with the Model and identifying its purposes and directions, as perceived by the Senior Administration. The purposes of the Model listed below were synthesized from those three interviews and were since verified by the administrators. The main objectives of the Model, as stated in 1986 were the following:

1. the development of a supportive, sharing "culture"

> . . . teachers expressing more open feelings . . . being prepared to risk a bit and have other people in their classrooms . . . a lot of sharing going on . . . where more people are willing to share with each other and help each other recognize that everyone has their strengths and everyone has their weaknesses and we can work together to improve and do a better job and feel better about it as we are doing it.

2. a defensible supervision and evaluation system

> . . . based on integrating the existing research and what we know about good teaching practice . . . if you asked teachers to describe how they were being

Table 6-8

Project Participants' Perceptions of the Impact of the Model (N=31)

	% of Responses					
	1	2	3	4	M	SD
When first year began, confidence in skills/ability to implement practices of Model (1=very unsure, 4=very confident)	12.9	35.5	45.2	6.5	2.45	0.81
Confidence now (1=very unsure, 4=very confident)	0.0	3.2	74.2	22.6	3.19	0.48
When first began, optimism of likelihood of actually implementing practices of Model (1=very pessimistic, 4=very optimistic)	9.7	48.4	32.3	9.7	2.42	0.81
Optimism now (1=very pessimistic, 4=very optimistic)	0.0	32.3	51.6	16.1	2.84	0.69
Extent Model has actually been implemented. (1=to a small extent, 4=to a large extent)	6.5	51.6	38.7	3.2	2.39	0.67

Table 6-9

Perceptions of Effectiveness of the Model (N=31)

	% of Responses					
	Not effective		Very effective			
Effectiveness of the Model	1	2	3	4	M	SD
A means of facilitating your personal/professional growth	0.00	22.6	64.5	12.9	2.90	0.60
A mechanism for fair and informed evaluations	0.00	6.5	54.8	38.7	3.23	0.60
An opportunity for sharing ideas and facilitating teacher communication	0.00	9.7	67.7	22.6	3.13	0.56
A mechanism for enhancing your teaching	3.2	16.1	64.5	16.1	2.94	0.68
A mechanism for improving the supervision process	0.00	9.7	61.3	20.0	3.19	0.60
A means of enhancing district climate	0.00	35.5	61.3	3.2	2.68	0.54
A means of enhancing staff/ administrator relationships	3.2	22.6	58.1	16.1	2.87	0.72
A means of improving student learning	0.00	35.5	51.6	12.9	2.77	0.60
A means of developing your own professional goals	3.2	12.9	74.2	9.7	2.90	0.60
A means of improving your feelings of efficacy	0.00	22.6	67.7	9.7	2.87	0.56

> evaluated they would describe a process that reflects the stages of the Model -- pre-conferencing, the observation and the post-conferencing. . . .

3. more teacher observation

> . . . teachers being observed more frequently and the kind of material that goes into their files would be more positive, more objective and more related to what the teacher considers to be important; teachers will have greater involvement in and commitment to their own evaluations.

4. improved teachers' classroom behavior

> . . . teachers being more effective and feeling good about it.

5. students feeling more positive

> . . . they [students] will feel that the program being delivered to them is significant and meaningful . . . hopefully a change in student performance and student learning, but that's difficult to do.

6. finally, perhaps, the "evolution of a profession".

A second set of interviews was held with the Associate Superintendent and the Project Director during the second year of the research/evaluation project, in September of 1987 and February of 1988. In September they stated that if the project were to be placed on a continuum from just beginning to completion, it would be "close to the middle" where it was just beginning to develop a life of its own. However, it was seen to be difficult to establish an 'end' as there seemed to be a growth mechanism built into the project. New objectives were continually being added and the goals of the project were growth oriented, therefore the 'end' would always move ahead. There was a suggestion that the project was moving in an uneven fashion, and by February this was a common theme. The phrase "broken front" was used frequently to describe a situation in which some groups were beginning to take ownership and others were struggling along. Varying degrees of commitment was suggested as the main reason for this staggered development.

Major outcomes of the Model that had been achieved to date were seen to be the following:

- the laying of a foundation for a long-term commitment to professional development and to practice based on research, and a realization that the District was serious about that commitment

- a wider support network of people who were visibly enthusiastic, as well as visibly and verbally supportive
- a building of trust relationships between teachers and administrators and an "opening of classroom doors"
- more thorough and explicit evaluations and written reports -- "a consequence of the inclusion of the teacher in the process" and the fact that administrators were "following the intended procedures of the Model"
- using the premises of the Model as the basis for many other things they were doing in the District (e.g., making difficult personnel decisions, creating new opportunities for a teacher, curriculum development)
- the production of a Handbook of observation instruments which was available for all teachers; resource samples and instructional materials prepared by the Coaching Team and "soon a handbook that will describe the Model in greater detail than we have ever had in print".

In spite of the accomplishments to date both of the Model administrators believed that there was much yet to be done. In September it was suggested that they would like to see all or most teachers participating; by February there had been a noticeable shift in expectations to assuming that there would be a number of teachers who would prefer not to become part of the project, and further, to accepting that situation. Nevertheless it was still hoped that most staff would elect to participate. Other major expectations at the September interview were that administrators would take a more active role, that there would be greater changes in actual teaching practice, and that the project would be able to "roll on its own". Major challenges for the year were seen to be ensuring that participants actually engaged in and practiced the supervision cycles and organizing a training program of excellence.

By February the second of those "challenges" seemed to have far exceeded the administrators' expectations. The success and commitment and strength of the Coaching Team was stressed over and over again. It was believed by one administrator that the team had taken ownership of their responsibilities to such an extent that they were basically functioning on their own: "They really do not need us!"

Other areas seemed to still require considerable effort. The project administrators had hoped to be more involved at the school level and had assigned themselves and the Superintendent one-third of the schools each to promote and nurture supervision activities but, like the participants, found other activities assuming higher priority at various times, primarily because the teachers in the schools seemed to have agendas different from those of the project administrators during their school visits. Although they felt that the number of supervision cycles actually completed was probably greater than last year, the number still did not seem to meet anyone's expectations. The difficulty continued to be in scheduling and organizing time. They indicated that the main factor was "having some lead people in a particular school", whether or not it was the principal. Also rather than so thinly spreading their resources next year they planned to attempt to focus on certain schools where there appeared to be real potential.

By the Fall of 1988 when the same persons were reinterviewed, there was a sense that in terms of their original expectations the Model was about 70 percent of the way toward completion. However, in terms of evolving goals such as meeting the needs of individual teachers, and long-term goals such as the development of a professional culture, the Model was probably still somewhere in the middle. Priorities for the 1988-89 year included providing continuing support for the Coaching Team, planning more activity for the original participants to "encourge the move from theory to practice", finding ways to "move into the area of [evaluating] school-based and District administrators", and using the Model to work with student teachers.

The administrators were asked about discrepencies between their very positive attitudes toward the Model and the researchers' perceptions that some teachers and school administrators continued to believe that very little was happening. Two likely explanations were offered: 1) that in any area of growth one tends to forget the pre-growth status, and in this case participants might have forgotten "the pre-Model level of activity", or 2) that the definition of 'activity' being used might be too narrow. For example, the administrators considered the application of the Model to curriculum implementation to be part of the

Model; some people may have seen the Model only as the formal supervision cycles. The administrators also believed that without the Model things would be different. The Model had provided a vehicle for capitalizing on teachers' expertise and as a result "something that will become ingrained in the culture of the system is that which can allow our staffs to behave professionally in a way different than many other staffs are allowed to behave".

Interviews with the Coaching Team

In the Fall of 1987 the responsibility for the training of the new G - H participants was transferred from the external trainer to a group of six teachers and administrators who had previously participated in the Model. This group became known as the CoachingTeam and they conducted all of the training sessions for the G - H group and for the new I - J group which began in the fall of 1988. Interviews were conducted with four members of the team, who also submitted journal entries recorded after each of the four training sessions held during October, November and December of 1987, and February of 1988. A final interview was held with the chair of the Coaching Team in October of 1988.

All the members had initially become involved in the Model as a result of having taken courses in Supervision and Analysis of Teaching either from the University of Lethbridge or the University of Calgary, and it seemed that their enthusiasm for the Model was based on this course work. All the individuals indicated that they were asked to become members of the Coaching Team. Two of them believed they had been approached as a result of their own experience with advanced training, another as a result of a paper he had written on supervision, and another because of an expressed interest in assisting with the facilitation of the Model.

The members of the Coaching Team appeared to share a common objective: to increase the sharing of information and techniques among teachers, and the movement of teachers among classrooms. All members of the Coaching Team believed that their role in helping to accomplish these goals was a supportive one. They viewed themselves as providing encouragement, motivation, guidance and feedback regarding the teachers' progress through the implementation of the Model, and to provide worthwhile experiences during the training sessions.

All team members indicated optimism about the future of the Model as long as the District continued with its full support. District commitment was seen to be the major requirement for the success of the Model. It was also suggested that principal and teacher support was critical, and that finances and resources must be available. It was clear that team members believed that to implement something of this nature requires a long incubation period and a long-term commitment: "[At first] you've got to go along and say this looks good and this tastes good . . . it can't be forced . . . unless you experience it you just can't know."

During their second year as a Coaching Team they had made many adaptations, in part because of their own growing expertise and willingness to risk, and in part because they perceived that the new I - J group had already had some experiences and was "raring to go". They decided to focus more on peer coaching than on the cycles themselves and to assist participants to focus on their own personal teaching. They also hoped to organize follow-up activities with the G - H group, in what they termed the "continuing action" portion of their mandate.

With respect to the impact on themselves, it was seen to be substantial. Their journal entries reflected a shift from early feelings of apprehension and nervousness, through relaxation, confidence and even enjoyment, to an analytical, reflective stance. The commitment of the Coaching Team members was clear -- from journals, interviews and from others' comments. They met frequently at breakfast or in the evenings; they prepared meticulously; they attended workshops and conferences to help them become more effective; they struggled and they grew.

Journals from G - H and I - J Participants

After each of the training sessions attended by the G - H or I - J groups, the participants completed five-minute journals, each of which addressed three questions: Why am I here? What would I like? How am I feeling? The journal writing had three purposes: 1) to encourage participants to maintain a record of their progress; 2) to take advantage of the power of writing as a form of inservice; 3) to provide feedback for the benefit of the implementation. Thus the journals were submitted to the Model coordinator who analyzed and summarized the content. The journals were not being written or analyzed for research purposes. However, as agreed in discussions at the beginning of the year these summaries were also provided to the research/evaluation project director. Summaries, in the form of hand-written notes and jottings, sketches and diagrams of interactions and verbal flow, tallies and verbatim quotes, provided for three 1987-88 sessions for the G - H group and the three 1988-89 sessions for the I - J group, were very similar. Generally speaking, participants were attending the sessions for one of three reasons: 1) about 45 percent of the participants expressed a desire to be a better teacher ("I want ideas and strategies"); 2) from 20 to 25 percent indicated that they felt they should be there ("an administrator recommended it", or "I want to be recognized as being interested in supervision"); and 3) the remainder expressed a feeling of neutrality or curiosity.

Most comments about how they felt were positive. The range of feelings ran the gamut from skeptical and "show me"; through lost, tired and reserved, curious, hopeful and expectant, and finally to enthusiastic and eager. As the training sessions progressed, expressions of satisfaction were far more common and indicated a desire to "get on with it". Negative comments were fewer and much more specific. The overall tone of the summaries was overwhelmingly positive.

Survey Administered by the Continuing Action Team

In October of 1988 a sub-group of the Project Steering Committee, identified as the

Continuing Action Team, distributed a survey to the 229 participants in the A - H training groups to determine directions for further training; 144 persons (63%) completed the survey; 38 were from the A - B group, 43 were from C - D, 33 from E - F and 30 from G - H. In general, approximately one-half of the participants in each group indicated that they felt the need for further sessions to increase their expertise (see Figure 6-5). A somewhat greater proportion of A - B participants indicated a desire for further sessions. Major areas targeted for further training were specific techniques related to observing and collecting data, report-writing, and analyzing and interpreting data (see Figure 6-6). General comments suggested that many participants were ready to move to 'higher level' teaching strategies and techniques, that they wanted to learn from each other, specifically to see "what's working elsewhere", and several suggested that they already had many ideas -- they needed to practice and implement them.

Curriculum Proposals

One of the major issues facing school districts in Alberta in 1988 and 1989 was the implementation of new curriculum initiatives mandated by Alberta Education. The administrators of the Model for Teacher Supervision and Evaluation determined that rather than provide separate and specific inservice activities to prepare teachers to implement the new curricula, they would utilize the vehicle of the Model for Teacher Supervision and Evaluation for those purposes. They believed that the Model had created a climate of trust, sharing and cooperation, and that there was sufficient expertise and leadership in the schools to allow and encourage teachers to plan their own learning strategies for implementation. Thus, resources allocated by Alberta Education for inservice activities were pooled, and groups of teachers prepared proposals to access the funds. The only stipulations for the funds were that the proposals be for implementing curricula and that there be a peer coaching component included.

Between the time of the announcement of this initiative (October, 1988) and early

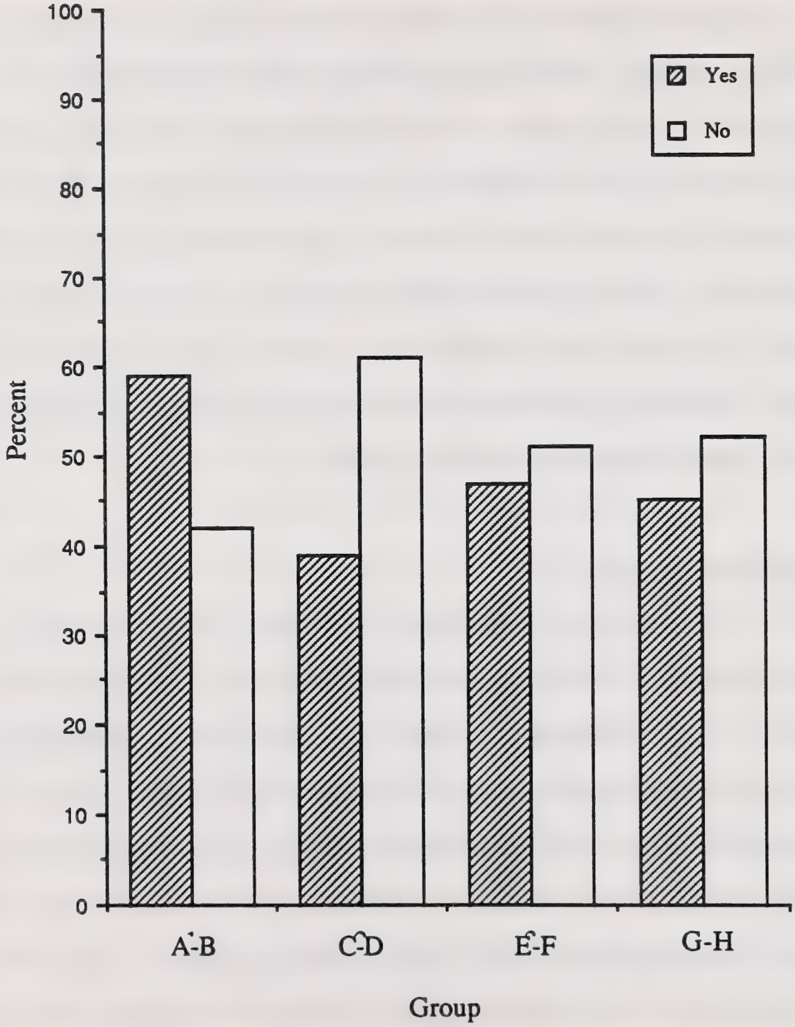


Figure 6-5: Percent of Participants Indicating Need for Further Training

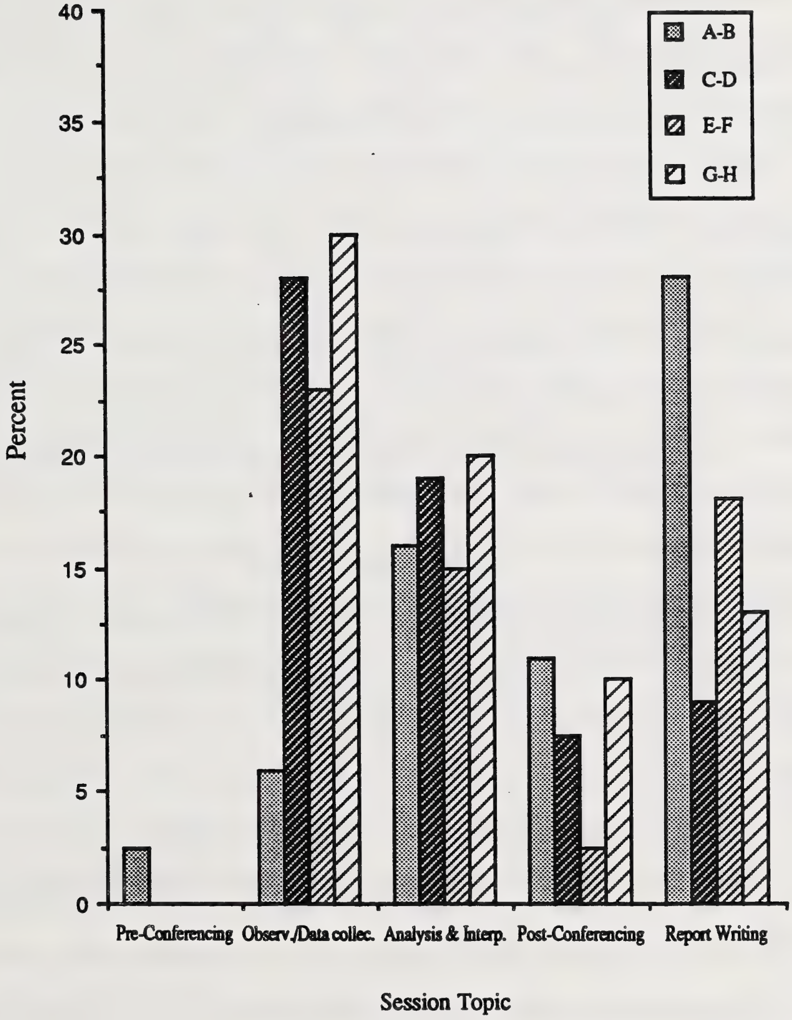


Figure 6-6: Areas Identified for Further Training

December of 1988, nine proposals for teacher inservice projects in secondary curricula, involving approximately 75 teachers had been submitted to and approved by the Medicine Hat School District for support from the project. The number of teachers involved in each of these secondary curriculum projects ranged from four to 21, with an average of about ten people per project. Most of the projects were related to new curriculum implementation in specific subject areas, including Drama, Language Arts, Social Studies and Science. The teachers were looking for methods of easing their introduction to, and implementation of the new curricula in the classroom. Some of the projects involved a few teachers in a particular subject area in a particular school; some cut across departments in a school; a few involved participants from several schools. When the Model was mentioned in the description of the purpose of the project, it was mainly in terms of the coaching model being used as the vehicle through which the learning and understanding of the new curriculum would take place. For instance, one project involved the use of the Coaching Model to implement the use of word-processing in grade seven Language Arts classrooms. Another project proposal requested funding for a workshop which would aid teachers in developing skills in evaluating students' written assignments in light of a new Grade 9 elective in Language Arts. The proposal stated that the Coaching Model would be used to observe the use of strategies learned in the workshop. A rather extensive proposal relating to the implementation of the new Career and Life Management (C.A.L.M.) program had 12 stated objectives, involved a number of resource persons and teachers and was designed to continue for a full year.

Informal Assessments

The director of the research/evaluation project and various other team members attended a variety of events and activities during the three years of the project, in addition to those relating to the more formal assessments, interviews and case studies. These included attending meetings with the Coaching Team, attending two full days of training with the G - H group, participating in a workshop for the 'advanced' participants, attending several meetings of the Steering Committee, attending recognition banquets, school board meetings and social functions, and numerous informal and casual conversations and interactions with personnel from the Medicine Hat District.

For the most part these perceptions were shared with project participants as formative, evaluative data. For example, following the participant-observations of the training sessions the notes were shared with the presenters. Also, these perceptions were presented in the various interim reports. Two impressions resulted from these informal assessments: the first is that the occurrence of formal supervision cycles as envisaged in the early stages of the Model was less than originally anticipated; the second is that the culture of the District was clearly one of enthusiasm and commitment with a focus on teaching and that the Model had played a significant role in creating this ethos.

School Case Studies

In order to represent how various stakeholders both individually and collectively experienced the Medicine Hat Model for Supervision and Evaluation, case studies of selected schools within the District were conducted. Two elementary and two secondary schools were selected to represent the various levels and perceived degrees of involvement of individuals and groups within the project. A list of potential case study schools was prepared by the School District. This list included most of the schools where a significant number of the project participants taught. The four schools selected for the case studies were chosen from this list. The schools chosen were considered to be representative of such aspects as school type (elementary, secondary); participation in the project including time and degree of commitment; and size. The specific purposes of the case studies were to describe and interpret:

1. the district, school and personal teaching contexts into which the innovation was introduced.

2. the various participants' experiences of, attitudes towards, and perceptions of the innovation; its introduction and process of implementation; its use and effect upon the teaching, learning and professional development of the participants.
3. how the project unfolded and manifested itself in different settings and with different people.
4. knowledge of critical variables related to the advantageous use of the innovation for professional development purposes.

To accomplish these purposes, a collaborative, co-investigator approach to the case studies was used. That is, the initial consideration in meeting with the school staffs was to invite them to collaboratively develop the strategies to be used in designing and implementing the case study.

Negotiating Entry and Method

In order to initiate a case study in each of the four selected schools, meetings were scheduled with the principal and assistant principals in each of the schools, during the first year of the research/evaluation project. The purpose of these four initial meetings was to introduce the case study investigators, to discuss the potential procedures for collaborative case study and to request an invitation to address a forthcoming general staff meeting in each of the schools so that the purposes and procedures might be discussed with the staff. Considerable discussion in these preliminary meetings was devoted to clarifying the general purposes of conducting the case studies and to issues of anonymity and confidentiality with respect to any data collected. It was agreed that the confidentiality and integrity of participants was vital to the case studies and that guidelines would need to be established to promote and maintain confidentiality.

Since teachers might be requested to devote additional time to the case studies, particularly time away from their classes, this was also raised as an issue at the preliminary meetings. The principals generally expressed concern about the amount of time teachers had already committed to various phases of the project and were reluctant to consider further potential disruptions to the school routine. It was agreed that all staff involvement in the case studies would be negotiated with a staff steering committee and approved at a general staff meeting.

In order to inform the various school staff members about the intent of the case studies, a letter was prepared (see Appendix D) which outlined the purposes of this part of the study and discussed how data generated by the case study might be controlled. Four meetings were scheduled in January and February of 1987 at which time the researchers met with the entire staff of each school, presented them with copies of the letter and invited each staff to nominate colleagues to membership on a steering committee whose purpose would be to design a case study methodology in collaboration with the researchers for their respective schools. Each school appointed such a steering committee and an initial meeting with each committee was held during February, March and April of 1987.

In order to initiate discussion the following questions were forwarded to the members of the committees in advance of the first meeting:

1. How will we gather data?
2. Will we gather data from both teachers and administrators? From those who have had training and use the innovation? From those who are in training at the moment? From those who have not had training but have been supervised?
3. To whom might we talk to obtain a comprehensive reading of the context of the school, its history, etc.?
4. How might we sample opinion about the innovation?
5. Are there aspects of the innovation, training, or implementation that we, as co-investigators, should directly experience?
6. How can we see the innovation in use and gather data on how these uses are perceived by supervisor/supervisee?
7. Can we organize the procedures and data collection into a manageable time frame?
8. To whom should we talk about the nature of the project as the school perceived it and how it was introduced?
9. What is the current status of the project in terms of implementation? Has it reached a level of use whereby we can see it as a 'mature' practice? Can we gather data in one period (this spring) or do we need to come back in a year to see 'mature practice'? How do we structure the gathering of data as regards time?

10. Are there different clusters of people with different grievances -- different adaptations or ways of using the innovation with whom we should talk?

11. With which different groups should we work?

12. Which of the following methods should we use to collect data: 1) autobiographical excerpts, 2) interviews with individuals and/or groups, 3) journal entries, 4) tapes, 5) participant observation either in class, in supervision activities, videotapes, 6) biographical interviews, 7) individual case studies, 8) basic survey questionnaires?

13. Other questions?

The purpose of the first meeting was to establish the basis for developing a case study design for the particular school. In the case of three of the schools the first meeting was sufficient to allow the researchers to formulate a design which was then discussed at a second meeting with each of the committees. A fourth school used a slightly different approach which will be discussed shortly.

Negotiated Case Study Design

The design identified five different purposes for collecting data and suggested both appropriate methods and potential sources for the data. It was believed that the historical context needed to be described so that readers would have a sense of the context into which the project was being introduced. It was agreed that the elaboration of this context might best be accomplished by interviewing an administrator and a teacher with considerable service in each school.

A second purpose for collecting data was to describe the introduction and implementation of the project in each school. These data would be collected by an analysis of correspondence among teachers, administrators and central office; by interviewing selected project participants, and through participation by the principal researchers in some of the training sessions conducted by Dr. Townsend. The school steering committees also agreed that the basic disposition of the staff toward the project over time might be an important focus, and that these data might be collected by means of a brief questionnaire which asked participants to elaborate positive and negative feelings toward the project when they first considered becoming involved and then as the project progressed.

The fourth purpose for collecting data was to obtain perceptions of various stakeholder groups toward the implementation and use of the innovation. Both elementary school committees agreed that interviews with all members of staff would be necessary in order to include varying points of view. At the high school level, it was agreed that various points of view might be identified with particular individuals and that selective interviewing within those identified groups would provide a representative sampling of opinion.

Finally, an in-depth study of the practical realities of the Model was recommended. This aspect would include a variety of methods to be negotiated with specific individuals who wished to participate in this in-depth phase of the case study. It was also agreed that these data would be collected in the second and third years of the evaluation process.

The design for Crescent Heights High School was developed first and was shared with other school steering committees as an example. Each school adopted many of the suggestions from other schools, which accounts for the similarity among the designs.

A second meeting was held with each steering committee to present a written version of the design (see Figure 6-7) for discussion and/or revision. Approval of the design was received at this second meeting and the design was then presented by the steering committee to a general staff meeting for discussion and approval. The revised case designs were then discussed with the researchers.

Questionnaires. To obtain a brief synopsis of most staff members' dispositions towards the project both at its inception and later, a questionnaire was developed by the researchers and the various steering committees. The questionnaire asked respondents to list positive and/or negative dispositions, feelings, attitudes, or observations about when and how the project began, and to indicate which dispositions had changed or remained the same over this period of time. The questionnaire was prepared by the University of Lethbridge researchers and then shared with each of the steering committees who

Research Phase	Methodology	Potential Data Sources
1.Historical context, readiness for innovation	Interviews	1 teacher 1 administrator in each school
2.Initiation and implementation of the project	(a) Analysis of correspondence and documents (b) Interviews (c) U. of L. researchers' training sessions	School files
3.Record of basic dispositions of staff towards project	(a) Brief questionnaire (b) 5 minute journals from training sessions	All staff Staff involved in project
4.Perceptions of various stakeholder groups towards the innovation, its implementation and use	Interviews	Selected representative of school staff at the high school level All staff at the elementary level
5.In-depth studies of practical realities of using the innovation	Personal case studies	Selected pairs

Figure 6-7: Methods and Data Sources Negotiated for School Case Studies

recommended changes, additions or deletions to a preliminary draft. A primarily open-ended questionnaire was adopted by three of the four schools and was used with minor modifications by the fourth school.

Interviews. The procedures used for the interviews were similiar in all schools. The administration arranged a schedule of interviews with the teaching staff in each school. The interviews ranged from ten minutes to 40 minutes in length. The shorter times were with non-participants who felt they had less to say about the project.

Interviewees were advised that the purpose of the interviews was to gather imformation about their perceptions of the innovations; that the interview would be approximately 30 minutes in duration; and that they would be asked to talk about any or all of the following areas:

1. how they became aware of and involved in the project.
2. their involvement with the project, including their experiences with the training session; in-school use of the information gained from training.
3. the effects the project has had on their classroom practice.
4. any individual issues, past or present, which were/are important.
5. the effect the project has had on professional development.

Each interview began by asking the interviewees how they were introduced to the project or, in the case of the non-participants, what they knew about the project. The interviewer interjected only when clarification of particular comments seemed warranted or when the interviewee announced that a particular line of thought had been exhausted. At that point the following questions or statements were used to stimulate comment:

1. How were you involved in the project?
2. Describe your involvement with the project.
3. What impact has the project had on your classroom practice?
4. Describe any issues or feelings you had or now have about the project.
5. Describe your professional development prior to your involvement with the project.

6. Describe your professional development since you've become involved with the project.
7. If this project was being introduced to another school jurisdiction, what would you change?
8. Comment on any other area you consider to be relevant to the project.

All interviews were audiotape recorded for later transcription. Analysis of the interview data was conducted from the written transcripts and from field notes written during or after the interview.

Data Collection: The High Schools

Crescent Heights High School

Data were initially gathered for phases one through four (see Figure 6-7) in Crescent Heights High School. Phase five was completed in October of 1988. At the beginning of May, 1987, during a breakfast meeting, the school steering committee suggested names of persons who would provide an appropriate spectrum of opinion, experience and disposition with regard to the project in terms of: (1) the history of the school and its readiness for this particular innovation (including administrator, department head and teacher perspectives), (2) the administrative view of working in the project, (3) the teacher perspective of being a participant and (4) the teacher view of being a non-participant. At the same time the researchers had identified a number of variables that we wished to ensure were represented among these informants. These included: administrators, department heads, teachers involved in the project and those not involved, persons with varying degrees of commitment to the project, those involved for one and two years, those involved in administrator-teacher supervision pairs, department head-teacher pairs, teacher-teacher pairs and representatives of both genders and different subject areas, as well as representatives of any group that had elaborated their own particular version of the innovation. A table of variables and potential interviewees was established and checked as to its representativeness. This proposed slate of interviewees was examined again by the steering committee later that day. An interview schedule was arranged for the following two weeks.

Crescent Heights High School has a staff of approximately 50 teachers and administrators. Approximately 20 of these were involved in some way in the project. We interviewed approximately 26 people, five or six of whom were not involved in the project. At the same time as these interviews were proceeding, the steering committee, independent of the University of Lethbridge researchers, had adapted and modified the draft questionnaire designed earlier to capture a quick photograph of the disposition of each staff member. They administered this questionnaire to all staff. As well, the documents relating to the initiation of the project were gathered for later analysis.

These data gathering activities gave us:

1. a brief synopsis of most staff members' dispositions towards the project both at its inception and later.
2. an historical view from the perspectives of both administrators and teachers, of the school context into which the innovation was introduced.
3. a school administrator's perspective of the nature and health of the project including a retrospective analysis of strengths, weaknesses, problems and concerns.
4. a department head's perspective of the nature and health of the project including a retrospective analysis of strengths, weaknesses, problems and concerns.
5. a teacher's perspective of the nature and health of the project including a retrospective analysis of strengths, weaknesses, problems and concerns.
6. as above for teachers not involved in the project.

In October, 1988 a further series of 21 interviews were conducted with the staff at Crescent Heights High School. For various reasons four of the original 25 members were not available to be interviewed. The procedures for re-interviewing were similar to those used 18 months previously. A general framework was established for the interviews so that information might be solicited in areas where it was not volunteered. The interviews were audiotape recorded and verbatim transcriptions of each were made. Transcripts were analysed and interpreted by different persons through a series of readings each aimed at identifying themes and commonalities of the various perceptions of individuals which might be synthesized into a school-wide picture of the thoughts, feelings, attitudes of the schools and their response to the Model.

The transcripts and text derived from the interviews were read by a second member of the research team with a view to validating the authenticity of the reported perceptions. A final stage was to provide members of the staff of the individual schools with copies of this report asking them to verify its accuracy.

Medicine Hat High School

The researchers and the steering committee for Medicine Hat High School agreed to a step-by-step approach to case study research at that particular school. The first step was to administer the questionnaire and interpret the data.

The next stage of the case study at Medicine Hat High School would have been to negotiate interviews with a sample of educators from the staff. The result of the analysis and interpretation of the interview data from the two elementary schools and from Crescent Heights High School had revealed, however, an extremely high degree of commonality of issues, concerns and positive themes. There were some minor differences noted in the degree to which different schools had responded to these issues and concerns, mostly related to differences in elementary and secondary school contexts. Given this outcome we felt it would have been redundant to interview Medicine Hat High School personnel at that time.

Data Collection: The Elementary Schools

The two elementary schools agreed that data collection would include administration of the questionnaire and interviews with all staff members. The questionnaires were administered in Ross Glen School prior to the Easter break, 1987.

This was followed by two and one-half days of interviews in early June. The interviews included all teaching and administrative personnel, teacher-interns and part-time teaching staff. Of the 22 staff members at Ross Glen, two were not interviewed because of scheduling difficulties; however, the remaining 20 staff members each met with one of the researchers for an interview about the project.

The procedures at Vincent Massey School were similar. Interviews with all members of the teaching and administrative staff (*N*=20) were conducted in late May. The questionnaire was distributed and completed the week following the interviews.

In the 1988-89 year, data for the case studies were collected by conducting interviews with the entire staff of each elementary school. Interviews were conducted over a three day period in October at the convenience of the school and arranged through the assistant principal's office. The interviews were from 10 to 45 minutes in length and averaged approximately 20 minutes. Similar to Crescent Heights High School a general framework was established for the interviews. They were audiotape recorded and verbatim transcriptions of each were made. The procedure for analysis was the same for all schools.

Interpretations: After One Year

The value in conducting the case studies was that the data gathered from both the questionnaires and from the loosely structured interviews with many of the participants and non-participants provided a picture, a collective perception of the strengths and weaknesses of the project. In the 1987 and 1988 interim reports of the research/evaluation project the case studies were analyzed in considerable detail and extensive use was made of direct quotes to support our interpretations. The reader is referred to these earlier reports and to the companion document for an elaboration of what follows, which is an attempt to interpret issues, feelings and trends which emerged from the recorded observations of various stakeholders after one year of implementation in the first instance and then 18 months later.

An important first consideration for many people was their perception of how the Model began. Some recalled a formal meeting which introduced them to the project while others recalled an informal introduction. Participants developed a sense of belonging and an active engagement with the Model to the extent that they felt included. Inclusion seemed to be defined in a variety of ways from personal contact with administrators and others directing the Model to receiving information about various ongoing aspects of the project. To the extent that persons were treated differently, concerns about inclusion and exclusion seemed to grow. For example, some participants perceived initiation to the Model as an invitation while others perceived it as a demand, with little or no choice. Greater consistency in the messages given about inclusion and exclusion by those responsible for implementation might have reduced feelings of anxiety about exclusion.

The decision to begin the Model with administrators became an issue in people's perceptions about collegiality and the way in which pairs were established. The sense of many participants was that pairings were established by request from administrators. The result seemed to be that many pairings were viewed as vertical rather than horizontal relationships because an administrator was paired with a member of his/her teaching staff. The tremendous benefits of involvement in an ongoing long-term professional development component were tempered in the minds of participants and non-participants with some apprehension; there was a feeling that verticality implied evaluation whereas horizontal two-way pairings implied collegial supervision. In terms of further evolution of the project or similar projects, the extent to which participants felt that they were engaged in their own professional development in a mutually supportive relationship seemed to be a major factor in the growth of the Model.

This is not to suggest that many administrative/teacher pairings were not collegially supportive. They were. However, the composition of the first training group, which included most administrators who were then often paired with teachers in their own schools, created an initial perception that a major purpose of the project was evaluation. The evidence from the interview data suggested that where collegial, horizontal pairings were established through choice in determining the other member of the pairing, or in pairs where the focus had been mostly or exclusively on growth through supervision, then activity in implementing the Model during the first year had been the greatest. A number of 'pockets of activity' are described later and these invariably were with groups where supervision was the focus, and evaluation was a by-product.

The impact of the Model on classroom practice was quite clear. It gave those who became engaged in the supervisory process opportunities to meet other professionals in a non-threatening, mutually supportive environment where the focus of discussion became personal, professional development. Respondents spoke to this as helping them overcome their sense of isolation. Even after just one year the Model had given them a focus, a place and a person or group of people with whom exchanges of a personal/professional nature could be articulated. The coming together of more and different people willing to talk and share themselves professionally provided the impetus for each to examine some aspects of personal practice and to effect change as a result.

An overwhelmingly popular comment about the implementation of the Model was the issue of time, and an examination of this construct is perhaps an excellent vehicle for describing the Model itself. As a linear, quantifiable construct, time and the lack of it in relationship to the Model was described in various ways. In the minds of several participants the project was 'added on' to already busy, hectic schedules and although the aims, direction and implementation strategies associated with the Model might be laudable, there just weren't enough hours in the day or week to be able to implement what was expected.

Time was also viewed as intrusion, a disruption to routines. Thus, many participants described their unwillingness to "give up classroom time" in order to attend training sessions or to supervise colleagues. Others mentioned the time required to prepare for a substitute teacher. Time was also described as part of the solution. Some participants felt that the observation time and the supervisory cycle time needed to be included in individual timetables so that the Model might be given the attention it deserved.

Another way of viewing time is to extend it beyond a simple linear concept; time might thus be viewed as a measure of the resistance to change. In this sense, time extends beyond a description of hectic schedules and the notion that teachers work in stressful, highly charged environments to a measure of resistance to change which is a fundamental aspect of all growth. An important dimension of this resistance is the considerable individual risk-taking the implementation of the Model demanded. The ongoing nature of the professional reflection and development demanded by involvement in the Model is quite different from some conceptualizations of professional development. Exposing one's pedagogy to a colleague or group of colleagues is potentially risky and a significant strength of the Model is that it requires of participants that willingness to be vulnerable.

In summary, the case study data after one year suggested that the Model was viewed by many as an opportunity for long-term professional development which is unlike most efforts of this kind. The commitment of resources and the conceptual framework for viewing professional development in the context of collegial supervision and evaluation offered much potential for system wide growth and development. Resistance to this change was inevitable. The changes which the Model implied were viewed initially with some fear and skepticism by some of the participants and the resultant criticisms about aspects of implementation seemed to be a matter of course in attempting to implement a project of this magnitude and depth. The translation of this resistance into practice was that most of the participants completed only a minimal number of supervison cycles during these initial stages of implementation.

Interpretations: Eighteen Months Later

Crescent Heights High School

From the analysis of the case study interviews conducted at Crescent Heights High School in October of 1988, it seemed that most people in this school were active in some form and to some degree with respect to the Model. This seemed to be a change from the previous set of interviews conducted in May of 1987, when the project was in its beginning stages. At that time it seemed evident that the school was just beginning to launch itself into the Model, and was experiencing difficulties becoming comfortable in new waters. The tone of the 1988 interviews was generally more positive and suggested that many of the participants had ventured beyond their initial concerns, which centered around confusion, lack of communication and uncertainty. Although the overall number of supervision cycles appeared not to have increased to any great extent, attitudes were much more positive and a certain calmness had replaced the initial turmoil.

The administrators were one group that seemed to have increased the number of evaluation and supervision cycles in which they participated (1987 self-reported average = 5.5; 1988 self-reported average = 22.0). This large increase could have been due to the fact that more cycles were being conducted for evaluation purposes, or that some contacts with teachers for evaluation purposes were not labeled as 'cycles' in the 1987 year because of their more informal (by Model standards) nature. During the following year however, the formality of cycles seemed to have relaxed to some extent and contacts previously seen to be outside the realm of the Model were now being recognized as related to it. Department heads as a whole were also making use of the Model in ways similar to administrators (self-reported average = 7.0 cycles since the project began); and similarly most teachers involved in the project were using the Model but with varying degrees of commitment and activity (self-reported average = 4.7 cycles).

One overwhelming prevalent and positive perception was that the Model had helped both administrators and teachers feel more comfortable with evaluation, in terms of clarity of the procedure and process, and with fairness of the results. Since there was an obligatory pre-conference at which the teacher and administrator agreed to the procedure and content of the observation, teachers felt less 'victimized' and more professional and valued through participation in this evaluation process. For example, one teacher responded to an administrator who spontaneously knocked at her classroom door and inquired if she minded if he dropped in by saying: "As a matter of fact I do mind. I would prefer that you came back at such a time that we could sit down and talk a bit first".

Theoretically, the ideal evaluation cycle consisted of a pre-conference in which the supervisor and the teacher met to discuss and collaborate on the purpose of the observation and on how the data would be collected. The supervisor then observed the agreed-upon class, preferably in its entirety, and collected the data. A post-conference was held as soon after the observation as possible and the collected data was discussed in an objective, non -judgemental manner. This process seemed to have alleviated much of the uncertainty, and provided a common ground between teachers and supervisors for a deeper understanding and keener awareness of the purpose and process of the evaluation.

Although evaluation was seen more positively, peer supervision, for some teachers, had become the major activity resulting from participation in the project. During the Model's initial stages the focuses chosen for observations had seemed limited to those suggested at the training sessions, including time-on-task, questioning, proximity to students, and positive reinforcement. As involvement in the Model continued however, activities expanded somewhat to include slightly broader and more abstract concerns such as student learning habits, listening skills of teachers and students, goal and value setting, and curriculum development. For example, one teacher pair used the Model to assist in the planning, development and implementation of the new health curriculum.

Several difficulties were reported regarding the choice of topics for the supervision cycles. As teachers moved from the initial stages of participation in the Model, it became increasingly difficult to determine focuses for their cycles. The ideas suggested at the training sessions had been exhausted, and although it was recognized that a move towards deeper issues was both beneficial and desirable, the difficulty in choosing future topics was actually becoming a hindrance to involvement, as was the difficulty of measuring more complex focuses. As the topics became more complex, so did the observations and the measurements themselves, and the growth to be expected in the teachers became more refined and precise.

There was widespread acceptance of the philosophy of the Model and recognition that participation was beneficial. However, difficulties in addition to the topics themselves hindered optimal participation. For example, the working reality of many of the teachers was such that finding the time and/or energy to implement anything beyond day to day survival was difficult. Also, there continued to be a perception from some teachers that abandoning one's own classes to observe those of a colleague was unacceptable behavior for a teacher.

Partnerships were seen as another key issue that sometimes hindered participation and activity, particularly if the partnerships were externally formed. Similarity of content areas and grade levels were seen as preferable to mixed combinations, and complementary personalities were mandatory if the trusting relationships necessary for success were to develop.

Another difficulty that was recognized from the case studies was the discontinuity that occurred from partner changes, long time lapses between cycles, and isolated 'one -shot' topics. There was a perception that each cycle was an isolated event that was complete in itself and did not lead toward further related activities. Thus, it seemed that the total workload, including teaching load, other projects, number of spares available, compatibility of partners and accessibility, were the key factors in determining participation and activity.

The formal supervision cycle had been adapted in several ways by teachers to suit their personal needs and the contingencies of their own classroom reality. There was a need expressed through visible individual interpretations of the Model to make it personally applicable and useful, rather than meaningful for the sake of the project. Several teachers had chosen to informalize the cycles to accommodate each other's schedules. They met briefly over coffee or in the hallways to set up and discuss observations. The goal of 'objectivity at all costs' was suspended in some relationships that experienced high degrees of comfort and trust. The feeling that they 'wanted to get right to the heart of the matter', to be more direct and subjective, created adaptations to the original Model.

Although the majority of teachers had become involved, or were planning to become involved before training was discontinued, there remained a small number of teachers who were reluctant to participate for a number of reasons. There seemed to be some underlying and unspoken factors contributing to non-participation that were not related to the Model in any way. They could have to do with the political climate in the school or to personality concerns or characteristics. However, the fact remained that some non-participants seemed adamant about not participating. On the other hand, there were other teachers who, at the time of the initial interview, had been opposed to becoming involved and who had expressed negative feelings towards the project, yet had later become involved.

An underlying fear that the Model would gradually fade away was evident in both sets of interviews with participants. Those teachers who were committed to the philosophy of the Model and convinced of its benefits began to express those concerns more openly during the second set of interviews. Through these interviews several suggestions emerged that were seen to be important for the survival of activities related to the Model. Continued support in terms of finances and resources, as well as emotional support from both school based and Central Office administrators were seen to be of primary importance. It was suggested that an occasional 'pumping up' was necessary to maintain a certain level of enthusiasm, and that friendly 'nudges' without coercion were also of benefit in promoting activity. Another suggestion was to increase the number of partners with whom an individual teacher might work. This would perhaps prevent boredom and stagnation that may result from continuing relationships with the same partner over a period of time.

The Elementary Schools

Description of the Schools. The two elementary schools selected for the case studies were quite different from each other. Vincent Massey was an older, more established school. It was different from most other elementary schools to the extent that it advocated departmentalization in the middle years and promoted subject specialization in areas such as Science and Social Studies. This approach necessitated fairly complex scheduling for the school and made additional supervision demands on most of the teaching staff. In addition, school policy promoted many out-of-class activities which also contributed to the scheduling complexity and to the supervision load placed on the staff. A common issue for many of those interviewed in that school was that the daily schedule of the school precluded finding time to devote to the Model because various teachers in the school were involved in teaching and/or supervision from 8:00 a.m. until late afternoon including lunch hour. Some staff members mentioned as many as 11 supervision periods per week in addition to teaching schedules with few, if any, periods allocated to preparation.

Ross Glen Elementary School was newer and was located in a growing, new subdivision of Medicine Hat. It was characterized in part by a more traditional organizational structure for an elementary school and a less stable student and teacher population. This school took part in a mandated district evaluation in 1987-88 and that one event had significant impact on the development of the Model in the school.

Administrator Perceptions of Involvement. The principals viewed their roles as facilitative to the aims of the Model. Although both were somewhat disappointed in the way the Model was initiated and developed, each had encouraged participation by both assistant principals and the teaching staff. There was, however, a recognition of the difficulty in implementing the goals of the Model in their respective schools. The teaching demands that were placed on teachers in the schools made it difficult for anyone to implement the Model effectively. The impact in the schools had been minimal and the reason given was a lack of time.

In response to perceived feelings about the Model, the comment was made that feelings had been rather negative for a period of time, but that they were now more positive again. The process had been a slow one requiring time and commitment from all concerned. The administrators indicated that few people in the schools seemed to be involved in the Model during the 1988-89 school year. There were perhaps one or two pairs involved in one or two cycles and that may have been as part of the research/evaluation project.

Staff Involvement. Involvement in the Model by teachers had been minimal. There seemed to be a number of factors related to this in each of the schools but generally most teachers (with one or two exceptions) spoke of their non-involvement in the intervening 18 months since the last interviews. Thus the 1987-88 school year (year two of the research/evaluation project) was one in which most teachers had not viewed the implementation of the Model as a high priority and although many expressed plans for the current year, the interviews were conducted too early in the school year for many of those plans to have been implemented.

The small number of teachers who acknowledged implementing some aspect of the Model during the 1987-88 school year represented a wide range of interests and backgrounds which resulted in a wide range of involvement. Involvement also included both formal and informal arrangements. One of the teachers reported completing six or seven formal cycles during the year including extensive use of videotaping as a way of solving scheduling problems. The value of the Model had been realized in the ways these teachers had altered their practices and the ways in which they had been able to transfer their learning to working with student teachers, for example.

However, this kind of involvement was unusual. In most interviews teachers reported that they did not have the time or in some cases the inclination to be involved. In the case of one of the schools, the Central Office evaluation had had a good deal to do with that response in the school. Much of the energy in the school during the Fall had been spent preparing for the evaluation. The Model seemed far removed from this reality. Most typical was a reported involvement that seemed to be a 'minimal maintenance' as response to the continuation of the Model in the school or in the individual's professional development.

Perceived Importance and Value of the Model. Although few of the teachers in the elementary case study schools had implemented the goals of the Model with any degree of consistency, those who saw the value of implementing the Model described that value in a variety of ways. One of the important benefits of completing collegial supervisory cycles was the focus it gave teachers on their own classroom practices. Devoting time and energy to a mutual exploration of some aspect of teaching practice with another teacher in a framework in which they could share what they did and how they did it was one of the most important benefits to derive from the implementation of the Model in the schools.

A number of teachers decribed the value of the Model in terms of the tools they learned to help them observe both their own practice and that of a colleague. Some described the objectivity it gave them to observe the children they teach. Others expressed an appreciation for the techniques shown them to observe their own practice. Still others expressed the value in terms of heightening their own awareness of their teaching. The Model had given them the opportunity to become more aware of what they did in the classroom. There are those who also saw the value of the Model in terms of how it had assisted them with their own evaluations. They saw the aims and goals of it being inplemented by others, particularly central office staff when they were evaluating individuals or the school.

The Model was seen as a valuable addition to the working life of many of the teachers. It gave them some insights into their own practice; promoted their own awareness of who they were as teachers and what they did in their classrooms. It gave them some specific tools to observe their own practice and to observe the practice of others and it gave them some insights into the evaluative practices of the district.

Impediments to Implementing the Model. The single greatest impediment to the implementation of the Model in the elementary schools was the teaching workload. The amount of work involved in teaching at the elementary level had increased dramatically over the years to the point where most teachers felt a great deal of job-related stress resulting from too little time to accomplish what was expected of them as regular classroom teachers. One person related this to earlier expectations and current levels of stress while another found the adjustment to returning to teaching compounded the difficulty of finding time for the Model. Some saw the problem as the way in which time was allocated or used in the school. That is, the impediment was not so much a lack of time as the way in which time was distributed on a daily basis in the school.

Another factor which seemed to impede the development and integration of the Model was organization. A number of teachers spoke about the need for coordination at the school level in order to facilitate the goals of the Model. Some described this as providing incentive while others saw it as a need to provide organizational leadership.

A further view was that the Model, or at least the examples used within the Model, were inappropriate for most elementary classrooms. Many of the examples shared in the training sessions as well as the instruments suggested for collecting data seemed to lend themselves to a teaching style which was teacher directed, with students in rows focused on the teacher as the transmitter of information. Several of the teachers interviewed suggested that the Model was not workable at the elementary level and made the project difficult to implement.

A final reason cited for the difficulty of implementing the Model revolved around the notion of trust. Many stated that it took time to come to know a colleague enough to trust him or her to implement it. There was a belief that the Model assumed that levels of trust developed quite quickly and easily, and several saw this as an impediment to the integration of it into their working lives.

Future of the Model. And what of the future of the Model? How did those interviewed see the ongoing development of it in their classrooms and in their schools? Almost without exception each described the role of the administration of the school in facilitating the process of implementation. For some, those comments were based in pessimism about the administration's willingness or ability to show the necessary leadership. For others it was simply a question of priorities. Where was the administration of the school going to place its priorities and how were those going to be communicated to the staff?

Summary Statement. The formal involvement of staff in the two elementary school case studies had been minimal. In spite of a willingness to support the development and implementation of the Model in their schools, most of the people interviewed said they had done little in a formal sense to implement it, despite a strong consensus that it was a valuable and important undertaking. Many saw the potential for the benefits to be derived from involvement in the Model. These included benefits such as focusing on aspects of teaching practice and promoting their own professional self-awareness.

The major impediment to the effective implementation of the Model seemed to be the question of insufficient time to properly devote to its implementation and the organization and structure of the teaching day in the elementary schools which militated against collegial, supervisory practices. The future of the Model was seen to rest with effective leadership within the individual schools and the establishment of it as a priority in the minds of the administration and staff.

Pockets of Activity

A number of situations were identified by the Model administrators as 'pockets of activity' -- situations where there appeared to be an elaboration, expansion or modification of the Model for particular situations. Five of these 'pockets' were selected by Central Office administrators for further study in 1988. In each case the research team was given the name of a person in a particular school or group who would be able to identify other persons who might be involved in the study. Members of the research team were assigned to specific pockets. Specific persons to be involved, the type of information to be gathered and how it would be collected, were negotiated between each researcher and the involved participants. Since one member of the research team was responsible for each pocket, and since the comments are therefore essentially one person's perceptions (gleaned from many research activities) this section of the report is written in the first person (the particular person differs from one pocket to the next).

A brief discussion about each pocket follows, but the reader must keep in mind that these pockets were identified in September of 1988 and for the purposes of this research project, data collection had to be essentially complete by the end of 1988. Thus the pictures that emerge of each pocket are at best a preliminary sketch. Each of the descriptions that follows has been validated by the members of the 'pocket' being discussed.

Medicine Hat High School

At Medicine Hat High School the pocket of activity was a self-appointed steering committee consisting of seven teachers and an assistant principal. My impressions about this pocket are the result of attending two of the steering committee meetings, having informal conversations with committee members and conducting four formal, taped interviews with committee members. All quotations are taken from taped interviews.

There appeared to be a sense from some members of the committee that the peer coaching notion had really begun with a group of teachers at Medicine Hat High School who some years ago had taken a course in supervision and had begun to initiate a successful supervision model in the school. There was growing interest in various departments in the school and the school model was just beginning to develop when "the District thing came along and then all of the attention was diverted over there". The focus shifted; participation became mandatory; people were "in it for all the wrong reasons" and were "doing the cycles for academic or political reasons, not because they believed in it". The feeling of all of those interviewed and the perceptions of the research team, was that the Model, with certain exceptions, was not very effective in Medicine Hat High School.

> The supervision cycle was something that teachers did because they had to as part of their training. And what happened was people did what they had to do. They did their cycles and their videotapes, but they quietly resisted and went away and said: 'That's it. I've done it.' And it really meant nothing to them.

However, a large number of teachers, all of whom had received training in the Model, attended a Manatt workshop on peer coaching in the summer of 1988 and "didn't want to let the ideas and enthusiasm die". These participants decided to establish a committee of seven teachers who were in their view "successful teachers, trained in the Model, from a variety of subject areas, and relatively influential". That group plus an assistant principal became a self-appointed steering committee for the school. Their goal was to "develop a total program for improvement of instruction, using the peer coaching concept".

Initially the committee had identified approximately 25 issues they wanted to address. These issues ranged from strategies for checking students' homework to assessing students' entry-level characteristics to enhancing the personal commitment of teachers. At the October 26 meeting the chairperson presented a strategy for approaching the issues. By the November 29 meeting there had apparently been a shift to a committee-designed plan founded on two basic premises: "(1) that all forms of evaluation and supervision must be developmental, and 2) that all professional staff are committed to professional development (i.e. improvement of instruction)". The plan had two focuses: basic survival strategies for teachers and expanding their teaching methods repertoire. The vehicle for accomplishing these goals was to be twofold: individual teacher growth plans and peer coaching (cycles of supervision). At the end of the research data collection period (December, 1988) the steering committee was dealing with getting the plan implemented.

The 'glue' that seemed to hold this team together and the fuel that gave it momentum was a belief in the power of peer coaching and a desire to improve their own and other teachers' teaching. The Model as implemented in the District had created "a desirable mind-set", had a "positive effect of opening doors", and had facilitated observations, but supervision cycles conducted "for the Model" missed the mark because teachers weren't necessarily working with someone who had the specific interests, needs or expertise they considered to be necessary, and because the impetus to do the cycle had not come from the teacher. The committee members believed that their role was to get something going and then to be a "sort of catalyst" in their own departments, as a "teacher to teacher thing". As one of them stated: "I'm kind of excited about what it can do for everybody, but especially for me".

General Impressions. My sense was that what was happening in Medicine Hat High School was an indirect, if not a direct result of the implementation of the Model for Teacher Supervision and Evaluation. It is possible that something like this committee would have been initiated without the Model, and it was too early to tell how effective the team's approach would be. Nevertheless, the expectations created by the Model, the positive attitude toward peer coaching and classroom observations, and the high percentage of teachers who attend coaching workshops and continue to be committed to the process had all been stated originally as hopeful or potential outcomes of the Model. If the Model were viewed in a narrow sense as consisting of the supervisory conferencing process then it had not been implemented as intended in Medicine Hat High School; if it were viewed as a mechanism for allowing and assisting teachers to take responsibility for their own professional development, it appeared to have considerable potential in Medicine Hat High School.

Crestwood School

The assistant principal of Crestwood School was identified by Central Office administrators as a contact person to identify a potential pocket of activity in Crestwood, the largest elementary school in the District. Perceptions about this pocket were obtained from four taped interviews, one of which was conducted in October, 1988 with the assistant principal and one of the two teachers assigned to facilitate the implementation of the Model. The other three interviews were conducted November 29 separately with the assistant principal and each of the two teachers assisting with implementation.

Near the end of the 1987-88 school year the assistant principal and a group of teachers had compiled an assessment of where their school was in terms of the Model for Teacher Supervision and Evaluation. Their conclusion was that the Model was "developing slowly" and they stated in summary:

1. Informal classsroom visitations have been encouraged by the administration to get teachers in each others classrooms.
2. Substitute teachers have been brought in several times in the past years to allow teachers time to carry out observations.
3. Teachers in the program have been paired with other teachers in the program.
4. Inservice sessions have been given on the Video-camera, and the Cam-recorder has been brought in from the IMC for use by the teachers. The improved microphone has been purchased for use on the schools video camera.
5. Extensive coordination has been carried out by the administration to ensure teachers attend the teaching sessions whenever possible.
6. Administration has offered to relieve any teacher who wishes to do an observation.
7. Evaluations of teachers, as required by MHSD #76 Policy B-22, have changed to bring the observations and practices into the majority of Model procedures. (Excerpts from school document, April, 1988.)

In the fall of 1988 the administration of the school determined that all of the teachers in the school who were participants in the Model should do a minimum of two supervision cycles per year, one in the fall and one in the spring. To facilitate that commitment they had assigned two teachers to be available during the day to take over classes for teachers who wished to observe each other's classes. The apparent intent was to "put it in the teachers' hands; if we can divorce it from the administration . . . [and keep] supervision and evaluation separate . . . we think there will be a greater degree of acceptance". The administration intended that the teachers "will do two visitations . . . if the teachers haven't done one prior to Christmas then we're going to put some indirect pressure on . . . so that the teachers may see it as important". There was also the expectation that the Model would somehow be used to further the development of a new thinking skills program.

There had been an attempt to separate the supervision conferences and visitations from evaluation visits which are conducted by the administration and of which there were 14 to be done in 1988-89. The process for evaluation was intended to be the same as for teacher supervision; the difference appeared to be in who does the observation and conference. However it appeared that for many evaluations the process was one of the evaluator "sharing the criteria with the teacher", conducting a number of observations, and conducting a post-conference and "if there's any aspects of teaching that require improvements" scheduling another evaluation after a time.

With respect to how successful the school had been, it was too early to tell. Out of 22 teachers in the school who had received training in the Model perhaps five or six had completed a supervision cycle between September and December of 1988, and most of those had been required to do so as part of the research project. However, there were apparently one or two teacher pairs who had requested the services of the relief teacher several times in order that they could further pursue their own goals.

The actual number of supervision cycles conducted appeared to have been low and I sensed that they were for the most part still being done for someone else's purposes.

However, supervision cycles do not tell the whole story. Among the illustrative comments about the Model from the assistant principal and the two teachers interviewed were the following:

> It [the Model] has got teachers into other teachers' rooms and they're visiting back and forth. They're talking about teaching type of things. You can notice the conversation in the staff room. One teacher hears that another's doing a certain thing and they get together . . . and this has happened quite a bit especially in the whole language.
>
> We're bringing up the TS&E as a topic during all of our staff meetings.
>
> We [the administrators] tend to use TS&E as a method of achieving what we want to in the school.
>
> [TS&E] has given teachers a common vocabulary to talk about what goes on the classroom . . . and made them more aware of what goes on in teaching.
>
> We have a lot of teachers working together, not necessarily in observation of their teaching but at almost every grade level teachers are working back and forth very closely on the kind of things they teach and the way they might go about teaching [and that kind of activity was a result of a push from someplace], because that doesn't usually happen . . . and every year there's more of it.

General Impression. It appeared that peer coaching or peer supervision as envisaged by the Model had not yet become a part of the culture of this school. Although some teachers were capitalizing on the available opportunities, for the most part teachers had not yet assumed ownership of the process. Nevertheless, there appeared to be considerable cooperative planning, a number of classroom visits and observations, a great deal of sharing and a focus on teaching. It appeared that the Model had had a positive impact on Crestwood School.

Southview Elementary Community School

Southview Elementary Community School represented a school-wide 'pocket of activity'. It was my perception that participation in Model activities was viewed as a school 'project' that was implemented, facilitated and evaluated by the staff as a whole. Although individuals remained generally responsible for their own participation, there seemed to be a sense that the Model was seen as a part of the school culture. These and the following perceptions were formed from my attendance at a staff meeting called to outline the implementation of the Model for the year; from informal discussions with staff members; and from interviews held with the principal, and four teachers, two of whom were clearly the leaders of the TS&E in the school. It seemed that the following characteristics had come together at Southview and interacted in such a manner as to facilitate and encourage peer coaching behavior.

Peer Leadership. It seemed that one of the most important aspects of the implementation of the Model at Southview was that the real leadership roles were filled by teachers. Two of the teachers at Southview Elementary School had begun their involvement in peer supervision through a university class in Evaluation and Supervision in 1982. They continued to pursue their interest by taking both the initial and the advanced training sessions provided by the District in relation to the implementation of the Model in 1985. One of these teachers became a member of the Coaching Team and continued her involvement at the school level as well. Although the principal and vice-principal "were involved like everybody else", each working with a teacher/partner, the catalyst for activity seemed to be these two teachers who were "interested and enthusiastic" and "kept working at it". They both agreed that "it was such a terrific model that [they] didn't want it to die away and nothing happen with it". The principal was very supportive of their enthusiasm and what he appreciated was "the fact that [the two teachers] said [they] would take care of getting it started so that it doesn't appear to be pounded into them [the teachers] from administration - that it's coming from two teachers". It was suggested by the two teachers that although there were some who were "a little bit negative" about the Model, if it had been "implemented from the top, there would have been way more. They see us as one of them, with the same problems and complaints". The following quote illustrates this belief:

> The other day in the staff room one teacher was feeling negative, she had had a bad day and we got to talking about what had happened. Then a few other teachers who were sitting around the table said they thought the Model

> was really good, and so this one person who had negative feelings thought quite differently at the end. She may not have brought this up at a staff meeting or anything. And so that seems like a much gentler way of encouraging somebody to think positively about TS&E. And she didn't feel attacked either, and she felt she could really say how she felt. Teachers clarified things for her. I thought that was a really good example of what peer support is all about.

The two teachers who had been involved in the Model since its inception and "took over" the organization and leadership of it within the school gave the Model an entirely different purpose in the minds of the teachers. It was seen by them as primarily being of benefit to teachers without any hidden agenda. They would be doing it for themselves. If two well-respected teachers were promoting it, there must be a good reason for participation related to something other than evaluation. This seemed to relieve the negativity of the"top-down" experience expressed in other schools.

Staff Stability. The staff at this school remained relatively stable over the years with very few changes. That had allowed the staff members to form friendships and relationships with each other based on working and socializing together over a period of time. Thus, the trust and understanding required of partners participating in Model activities was established before the project began and time was not needed for these relationships to evolve.

Social Life. Related to the stability of the staff was the social life that had developed. It seemed rich and varied and also facilitated the establishment of the trusting relationships necessary for easing into Model activities. Trust was necessary to have established before meaningful peer coaching occurred and it seemed in many cases that this trust had already been established, partly through participation in many social events and activities occurring both within and without the context of the school.

Community School. The community school concept seemed to be an important one in successful establishment of Model activities. The teachers were already comfortable with having people in their classrooms, as the concept of a community school encouraged participation in many aspects of the life of the school from volunteer parents and other members of the community. Having colleagues in classrooms was a very easy and natural step for the staff at this school.

Community School Coordinator. Related to the benefits of the community school concept was the fact that the school had a community school coordinator with administrative time available that could be used to organize and coordinate Model activities. It was this coordinator who facilitated the teachers by carrying out some of the time consuming organizational details, making participation easier for the teachers. It was interesting to note that the coordinator was also the teacher who was a member of the coaching team, and therefore had a very personal interest in the Model.

Support of Administration. The principal at Southview was obviously very supportive of the project, which was evident from both his behavior and his words. He not only spoke very positively about the Model and its benefits, but behaved in such a way as to support his ideas with actions. Although his position was made very clear, his actions were by no means coercive and his staff genuinely felt that participation was their own choice. His belief in the Model was evidenced by the successful efforts to make participation as easy as possible for his staff. The organization of substitutes was done by him and certain days were 'timetabled' in which substitutes would be available for relief for participation in Model activities only. All the teachers needed to do was 'sign up'.

Expectations. Although the administration did not coerce participation, certain expectations were clear. However, if a teacher decided not to participate after becoming knowledgeable about the Model, the final decision was left to the individual. The teachers remained autonomous -- individuals respected for their decisions and integrity both by administrators and peers.

Goal Setting. The school as a whole participated in an evaluation of themselves as individuals and in goal setting for the coming year at the end of each term. The administration believed that goals cannot be achieved if they are not set, and this philosophy has carried forth into activities relating to the Model. Each teacher was required to write a brief summary of Model-related goals for the coming year and to submit them to the principal simply for his interest and for filing. This would give some direction to the cycles that occurred and would assist in the evaluation of the Model at the end of the year. It would also allow the teachers to make more objective decisions regarding personal benefits or growth of the individual as a result of participation in the Model.

Use of Substitute Teachers. The availability of substitute teachers made by Central Office for the implementation of the Model was seen as more than a gesture by this school. It was used thoughtfully and efficiently by the administration and served to reduce the burden of the teachers rather than increase it. The part-time teachers at the school were used as substitutes whenever possible so that disruption of the school was held at a minimum. The scheduling of the substitutes was coordinated by administration in order to make the most efficient use of them, and to allow the teachers the luxury of not having to spend time performing that task. Rather than have the teachers decide which day to participate in a cycle, available days were organized and pre-set with substitutes arranged. This lessened the chances of an entire semester slipping by without opportunity arising for observations to occur, simply through a lack of organizational time on the part of the teachers. Consideration has already been given to the time when the availability of substitutes for participation in Model activities would be terminated (i.e., when the project as such comes to an end). The principal recognized that substitutes have been and will continue to be available to cover administration absences for a day or a half day in order for administrators to attend meetings and other related functions. Other than covering any classes that the administrators may be teaching on that particular day, the substitute used to remain relatively free. Not any more in this school! This is the day set aside for supervision activities and any time not spent covering classes for administrators is to be spent covering classes for teachers engaged in supervision activities.

General Impression. It was my impression that although there had not been many cycles completed to date, the teachers at Southview were committed to the Model and had set honest and achieveable goals for themselves in terms of the number of cycles they had planned for the school year. It must be remembered that the interviews were conducted in October, 1988 -- just as the school year was underway, yet by that time the teachers had already completed an average of 1.28 cycles. The average number of cycles planned by the teachers and reported to the principal for the upcoming year was 3.62. I had the sense that the Model was working well in Southview, and because of the particular characteristics and interactions stated previously, I felt that the teachers would be successful in meeting their goals and perhaps in surpassing them during the coming year.

Crescent Heights High School

A 'pocket of activity' was identified at Crescent Heights High School and took the form of a partnership. Two teachers at this school had been identified as being active supporters of the Model. The following perceptions were formed from informal discussions with the two teachers; two interviews with each as part of the case study research, one in the spring of 1987, and one in the fall of 1988; an observation of a peer coaching cycle including an actual classroom observation and a post-conference; and a combined interview with both teachers.

Through the suggestion of the vice principal, the two teachers had begun their participation in the Model in 1986 as partners. Although one of the partners had had considerably more teaching experience than the other the relationship developed with no sense of hierarchy. It was suggested by the teachers themselves that trust was the most important element in their relationship. They felt safe in demonstrating or expressing vulnerability and honest thoughts about themselves and each other. This was more than a professional partnership -- it was a friendship. As well as trust, they identified a sense of humor as being an important characteristic of their relationship: "You need somebody you can laugh with and be able to laugh at yourself before you can open up to any extent".

Although my perception was that they were both excellent and innovative teachers, by their own admission they believed they shared a "sense of insecurity" in their teaching and were therefore always eager to learn new ways to improve. "It's [the Model] given us a nice way of dealing with that insecurity". They believed that one of the most exciting and relevant ways for them to accomplish their goal of improvement was to visit each other's classrooms. Not only did they gain specific teaching skills and practical activities from their visits as observers, but they were able to provide validation and support for feelings that the other teacher was experiencing.

The fact that they both taught the same grades and subjects was also seen to play a role in the effectiveness of their pair. This enabled them to use the Model to plan and implement new curricula or particularly difficult units. They also believed that their involvement in TS&E provided a framework for them to "work together on curriculum, which in turn made it easier to work together on TS&E". They saw it as a circular interrelationship.

My perception of the success of this 'pocket' was that the teachers involved had adapted the Model to suit their own needs and purposes:

> I think some teachers perceive it [TS&E] as simply a tool that you use just to observe a teacher, period, whereas that sort of thing has not always been a big part of our experience. It's been going in to her classroom, finding out what I can learn, what she can learn, and both of us becoming better teachers as a result. It's like team teaching except one of us gets to step back and take an objective look, then the other one gets a turn. I think that some of the other teachers perceive it a little bit differently.

Paramount in their minds was the ability of the Model to improve teaching and they were prepared to take risks, to use and adapt the Model in whatever way they could to suit their personalities and to best achieve this goal. This was evidenced by their ability to tackle "pre and post conferences" in the staff room or in the hallways, and to introduce as much subjectivity into their conferences as they were comfortable with and wanted. The 'formal Model' was not about to stand in the way of what they wanted to get out of it.

The teachers believed that they would eventually have been working together in some manner even without the TS&E Model, however they were uncertain as to when it would have begun or how active they would have been without the validation of classroom visitations provided by the Model. It had given them the 'permission', public approval, and impetus for participating in the sorts of activities that they believed to be beneficial.

There was a sense that the administration at the school played a major role in encouraging and facilitating participation in Model activities. Although they believed they were "both internally motivated", they also suggested that some external stimulus was necessary as "it's easy to let it slide. . . . You need some stimulus to get you going." They felt that the school administration was very supportive in this area and they "try to stir us up a little bit and get us going, but not in any sort of intimidating way. They just keep us edging toward it because they know we're committed." The two teachers felt they were doing something that was sanctioned and even valued by their administrators. They suggested that without this support generated by the TS&E, the level of their activity would not be as high as it was:

> [If the Model had never existed] I think we would certainly be trading ideas and techniques. However, we wouldn't feel as free to go into each other's classes. The act of going into classes has been a springboard into delving deeper into each other's teaching styles as well as our own. I think we wouldn't do this as much without the Model. This has opened the door for us.

Alexandra Junior High School

The basis for determining that Alexandra was a 'pocket of activity' rested, in part, with the perception that the administration of the school was highly committed to the project. I began my investigation with interviews with the two of the Vice Principals. They were chosen because one was the person who wrote the operational handbook for the project and the other was the administrator responsible for implementation of the project in the school. The concluding parts of those interviews requested that each provide me with his or her opinion as to the best or most effective way of investigating those factors which seemed to contribute to this perception that Alexandra was an unusually active participant in the project. Each administrator suggested interviewing key or representative members of the staff on the one hand and analyzing the documentation in the school regarding the Model on the other. The documentation which I read included: The Operational Handbook for the project, a case study of Alexandra Junior High prepared by a graduate student at the University of Lethbridge, the Alexandra Junior High Supervision and Evaluation Committee minutes from March 5th, 1987 which outlined the goals of the project for the school for the 1987-1988 school year, and the results of the Teacher Supervision and Evaluation Project Survey conducted at Alexandra during that same school year. The documentation was read after the interviews and was used to collect evidence to support or challenge views presented in the interviews.

The two interviews with the Vice Principals were conducted first and from those two interviews and discussions further interviews were arranged with three representative teachers; that is, teachers who were viewed by Vice Principal as representing in some way the varying views of the staff of the school. From reading the transcripts of the interviews several themes emerged which seemed to group factors which contribute to the way the project was received and implemented in the school. I have labelled those themes as: Administrative Philosophy, Working Context, and Staff Support.

Administrative Philosophy. Each person interviewed mentioned the very significant role that the administration of the school played in the implementation of the Model in the school. This seemed to begin with the influence of the previous principal and his style of leadership in the school and it extended to the current administrators and their commitment to the project. The principal was described as an instructional leader, a humanist who developed a climate of trust and caring in the school which set the 'tone' for the project.

> And he's highly organized, but very warm. A caring individual, and I think that's a rare combination. So I guess if you were to ask me in one sentence, I would say that the principal did it.

It was in this context of trust and caring that the project was introduced. The beliefs of the current administration continued to enhance the collaborative, cooperative feelings of those involved in the project. The current principal was enthused about the Model and a very strong supporter of it, and the staff in return viewed the administration as supportive and congruent in their response to the goals of the project.

> You know, our administration practices what they preach. So they practice the Model when they do observations. That helps. They set a good example and do some modelling, rather than just do as I say, not as I do. So I would say that would have a bearing on it.

The administration saw a need to keep the project going in the school and tried to accommodate to the needs of their staff by immediate support of their efforts.

> If people want me to come in and cover class I'll drop what I'm doing because it's important to me that this project continue on at this level. And never once have I said maybe, or no. It's yes, right now, when. I want to be very positive with it. I don't give them the slightest possibility of being turned off, and I'll even go around and encourage people . . . . We provide motivation to the staff. We try and make it as easy as possible for them to get involved and stay involved in the project. Every so often we'll meet and say we think it's time for another round. We'll designate a date, set up a chart in the staffroom, and bring some subs in. We had two a day come in, and they covered all the teachers so they were able to do an observation. We told them that they could also use sub time for a pre, or a post-conference. We haven't yet had a group of teachers come to us and say 'Hey, four of us got together, and we would like a sub on Friday', but we have had teachers who have said, 'Hey, I would like to go and visit Al's class next Monday.' And I said, 'Hey, no problem, I'll cover your class.'

The administrators believed that with this support, eventually the staff would make the project their own.

The implementation of the project at Alexandra has been rooted in a need on the part of the administration to get the project going in the school and then to keep it alive. A planning and implementation committee met and established goals for the project in the school. These goals were established prior to the 1987-88 school year and attempts were made during that year to implement the goals. Among others, these goals were to:

- familiarize all staff members with the Model
- establish 1987-88 as the key supervision and evaluation year for Alexandra

- acquire substitute teachers to help regular teachers involved in the project
- provide support and training for those interested in the project
- have three or four cycles of supervision each year
- use coaches and trainers from within the school.

In order to establish these goals and a plan of action, the committee distributed a questionnaire to the staff asking for feedback both on the ways in which the goals had been articulated and future directions for the implementation of the project in the school. The committee met and reviewed the information and at the beginning of the 1987-88 school year, the school-wide plan was put into effect.

In 1988-89 the perception of involvement in the school was quite different. It's as if 1987-88 was a high point for staff involvement in the project and the school administration saw the level of participation somewhat differently in 1988-89.

> We're quite concerned that for whatever reason, there isn't enough going on right now. And what I mean by that is in a formal sense. There's been a great deal of informal supervision going on.

> This year we haven't done anything on that level. At the staff meeting we introduced the new members to the group, and made the presentation of the lapel pins to them as signified members, I guess, of the club, or whatever you want to call it. We find that most of our teachers in the school are involved. Those that aren't involved isn't because they don't want to be, it's because there's no room in these groups. Plus this year we have some new teachers, and I don't know if we've decided whether we want them involved or not. We think that they are new to the teaching profession they don't need this stuff going on right now. They've got enough things happening in their lives, that they don't have to go to workshops, and start practicing these skills, so we haven't talked to them at all.

Working Context. The project seemed to operate in the school in both formal and informal ways. Days were set aside when substitute teachers were made available to staff members wishing to engage in a supervision cycle. A schedule was posted in the staff room for people to sign up. The booking sheet was always full. These formal cycle opportunities occurred three times during the 1987-1988 school year and were very successful. From these formal opportunities a range of informal arrangements occured. The following are examples of that process:

> Last year I did a unit of study combining the SLD class and one of my grade seven classes. The other teacher came in to observe how I taught a social studies unit, because she had never done one. I taught her kids and mine and it worked out . . . we really enjoyed the experience. The kids enjoyed it. She supported me by going around and making sure her kids understood what I wanted done, and I taught the lesson. And then we would sit down together and I would tell her what I was going to do, and she said what problems do you anticipate, and then she could observe and see if those things were really happening. So we did some pre-conferencing, and we did some group projects where we integrated her kids with groups with my kids, and tried to take two separate classes, and meld them into one. And this took us about three months to do. And that was every day for one period a day where the two of us were in the room.

A second staff member described her process of reintegrating herself into the school after a prolonged absence from teaching. Part of the process involved using knowledge gained from the project in working with a colleague in the school. Another aspect of the process was to involve the administration of the school in formal evaluation. The knowledge gained from the colleague seemed to play a significant role in being able to view the evaluative aspects of the Model in a different light. It began for her with a suggestion from administration.

> So anyway, they [administration] felt that maybe getting into this project would help me . . . by seeing first of all someone else's classes in operation; plus having someone come in and take a look at mine, and perhaps look at specific things.

The cycles of supervision seemed extremely helpful where much was learned from each session. Paired with an experienced colleague, eight cycles were completed during the school year; four each as teacher and as supervisor. Each cycle included pre-conferencing, classroom observation and post-conferencing and often included videotaping as a way of reflecting on practice. Some of the important benefits of the process seemed to come from the detachment in viewing practice that the Model provided. Of particular significance was the value of feedback to another, provided as part of the supervisory cycle.

> And I just found that was a real sort of eye opener to be able to see from the

> outside yourself on the inside, kind of thing. And what you were doing because when you're in the classroom lots of times you're not aware of what all is going around and I was feeling really frustrated with one class in particular that I had. And really not knowing what to do with it, or what it was I really wanted to deal with, and so from seeing that, then I could see some things that I thought might help me, and so I asked [my partner] if she would take the statistics on that and help me to see if that was the area that I needed to work on.

Involvement with the project in both formal and informal contexts with a colleague was instrumental in allowing the administration of the school to be a part of the teacher's formal evaluation. In fact, she requested the involvement as a way of documenting her progress and as a way of helping her continue to grow professionally.

> Sandy did an evaluation on me as well because I wanted an evaluation. Last time I was only actually teaching half-time, and I wanted an evaluation to go in to my records so that I had some current information in there. So Sandy did. And we did at least four, where we had a pre-conference and she came in and did observations, and then we did a post-conference. But with Sandy it was only one way. She was always the supervisor and I was always the teacher.

The importance of the project in this teacher's professional development is obvious. Through both formal involvement at the suggestion of the school administration and informal collegial exchanges with her partner and subsequent requests for evaluation reports for her file, the project became a vital part of this teacher's work life. The value is characterized as follows:

> I feel that I have gained a lot from it, and it has helped me to be able to zero in on situations in my classroom, to help me to be able to see them more easily. We took a look at that book of [data collection] instruments that they had and it made us stop and think about how could we use this material. I have one student who is just not working and his mother won't believe me. I would like [my partner] to come in and collect some statistics and let me do this three or four times. Then I could have some concrete evidence to deal with the parent, you know. So you can use the information in lots of different ways.

Another member of the teaching staff describes his involvement in a different way. The formal aspect becomes an invitation to participate, an invitation to observe in each other's classrooms.

> And so it gives a opportunity to go in. There's no pressure to go through the formalities of the supervision process. And I think that's important too, that we're not being pushed; that you have to sit down and go through the

> twenty minute pre-observational conference, and a twenty minute or half an hour or more post-conference. It's more dealt with on a professional level. I went in and saw [. . .], and we had two minutes walking down the hall and three minutes discussion during the class time, and so we weren't taking up the free time over a short lunch hour or any time in between. It was,' Come in and take a look at this', you know, on-task behavior, and within three or four minutes very informally we got that data down and went in and observed. After I got the data down I spent fifteen or twenty minutes coming up with the data, and putting it into percentage points, and I gave it to him. And I said you know, we can talk about it some other time. And we spent a few minutes after that just discussing it.

In discussing the ways in which the staff had worked with the Model, the assistant principals described the value of the Model in the formal parts of their relationships with their staff. The Model became the norm for the way in which evaluative practices were conducted in the school.

> If anything happens to you in an evaluative sense that is contrary to the Model, then you have every right to scream about it. And I think that's terrific defence. And most people can say: 'If I get nothing else out of this, I'll know how to defend myself in a poor evaluative practice.'

They also described the value of the Model in helping establish informal collegial relationships between them and staff members and among individual staff members.

> Even though it's an academic exercise, it's getting done, and the idea's that the more that you do it, the more comfortable you feel. People are saying that you have to do it five or six times until you feel good enough to really do it. So we're providing them with practice time, really. On their own, I don't think that they would do it. So if we can provide them a lot of practice time, get their confidence in there, I think it makes quite a difference.

Staff Support. Although the foregoing may describe examples of the implementation of the Model in Alexandra, it does not speak to the climate or tone which existed in the school and which 'allowed' a Model such as this to be nurtured and to grow. I asked each of the people I interviewed a question such as: "What is it that makes this place unique? What is it that allows a Model such as this one to work so well in this school?" Although the responses from each differed somewhat, everyone spoke about the climate of trust and cooperation that is Alexandra.

The assistant principals spoke about it this way:

> I think one of the things that makes this school really special and effective is that for whatever reason there is a staff that is highly supportive of each other, very perceptive of each other. Where people are having problems, others know and act upon it, or want to act on it. A good staff has been gathered and they want to work together.
>
> And there was no twisting of arms to get them involved. I think it's the enthusiasm, the motivation, a number of people. Maybe we're a young staff.
>
> Our teachers are so free to visit other classrooms. There are no qualms. I think maybe to some degree because of [the] familiarity with the people among themselves. A lot of people have been here for a long, long time. They feel quite comfortable with each other and they don't mind you coming into their rooms even if it's just to pick up a book and walk out.

Most often the teachers who were interviewed spoke about trust as the single differentiating characteristic of the school and they spoke of what it meant to the project to work in a school where staff members trusted each other.

> So I mean obviously I think another strength is that you are working with people with whom you know, and trust. And we help each other in every way possible every day. So if you have one of them come into your classroom, it really isn't a negative experience. I mean it can only be positive because we're always supporting one another in any way that we can. And I think that's one of the things that makes the Model work here is that we are a very cohesive staff.

> Plus staff trust, because if you don't trust the people around you you're not going to have any of them in your room. Liking the people with whom you work, having a sense of fellowship, being dedicated to school goals, feeling that you all share a sense of professionalism, and that you all are trying to achieve the same ends, that you are here to not only work with the young people, but to support each other and help each other for the overall good of the school. Because many times we do things here that are not for personal good, but for the long-range good of the group, because we do many things that make us momentarily uncomfortable, but we realize that in the long-term they will have value for the school. So there has to be some sense of altruism there.

Summary Comment. The Model worked in Alexandra because the administration of the school as a group was committed to the aims of the project. This was evident both in the ways they chose to speak about the project and the way they practiced supervision and evaluation in the school. The teaching staff were encouraged to participate through the facilitative roles school administration played in providing opportunities for involvement. The teaching staff became part of the project in a formal way because of the levels of trust which have evolved in the school. These levels of trust come from having worked with the same people for a number of years and in knowing them beyond their professional roles in the school. This formal involvement allows or promotes many varieties of shared informal 'supervision' practices within the school as various people become comfortable with risking their sense of self as teacher with a colleague.

CHAPTER 7

AN ASSESSMENT OF THE MODEL OF TEACHER SUPERVISION AND EVALUATION

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In this final chapter we attempt to accomplish a number of purposes. First, we present a synthesis of the findings resulting from three years of research directed toward answering specific research questions. The results of this research were presented in detail in Chapters 4 through 6 and are summarized in this chapter. Secondly, we attempt to describe the evolution and implementation of the Model for Teacher Supervision and Evaluation as it unfolded in the Medicine Hat School District and to assess and describe the extent to which the purposes of the Model were realized. Thirdly, we present our analysis of the factors we identified as having contributed to the success or failure of the Model in various contexts. Fourth, we suggest future directions for the Model according to its various shapes, forms and stages of implementation, and finally we attempt to evaluate very briefly, the research/evaluation project itself and to make suggestions to the Department of Education. This chapter is organized in five sections to reflect the areas just described.

A Synthesis of the Research/Evaluation Results

The purposes of the research/evaluation project were to address the five major research questions described on page 7 . The results of this research have been presented in detail and are simply summarized here.

Impact of the Model on Teacher Behaviors (Research Question 2a)

We were unable to document conclusively that teaching behaviors improved as a result of participation in the Model. Teachers' observed skill scores were consistently high and it is difficult to measure improvement when beginnning scores are already high.

Scores did increase slightly, though not significantly, over time, but even if this increase was real, we cannot assume that participation in the Model was responsible. Teachers did indicate that they had identified a number of teaching strengths and areas for improvement through participation in the Model and they expressed a desire to learn more about the more difficult and complex teaching behaviors.

Overall, teachers' perceptions of the impact of the Model on their teaching behavior ranged from "very positive" to "not much of an impact". There was a sense of greater reflection about and appreciation for what happens in classrooms and the complexities of teaching. More specifically, some teachers believed that their awareness of classroom management, of the learning-teaching process, their personal teaching styles (strengths and weaknesses), lesson structure, and the effect on the children in the classroom had been enhanced.

Impact of the Model on Student Achievement and Behaviors
(Research Questions 1 and 2b)

Student Achievement

Improvement in student achievement as measured by results on standardized achievement tests was impossible to demonstrate. That is not to say that student achievement did not improve, but that our measures were not sensitive enough to identify improvement. To establish a direct causal link between an intervention with teachers and measurable student outcomes is difficult at best, but is virtually impossible in a situation in which, although the teachers remained more-or-less constant from year to year, their students were different every year. Also, standardized achievement tests measure achievement in preceding years as well as in the year being tested, and the students being assessed may have been with the particular teacher in the research sample only briefly.

Students' On-Task Behaviors

The proportion of students' on-task behavior appeared to be relatively high and stable over the duration of the project. There appeared to be no significant differences among the classes of teachers in the different training groups or over the three years of the research, in the proportion of class time students were observed on-task. Delay time did show some decrease from the first to the second year of the project, particularly for the A - D group of participants.

Students' Perceptions of Classroom Climate

Students in general, and students in Grades 6 and 12 particularly, perceived the climate of their classrooms very positively. Although there was considerable interesting and important information resulting from the administration of the classroom climate surveys, there was no apparent change over time, or according to the length of time their teachers had been participating in the Model. This is an area which could lead to profitable research activity.

Impact of the Model on Conferencing Behaviors (Research Question 3)

There were noticeable changes in participants' conferencing behaviors over the three years of the research/evaluation project. In some cases the changes were idiosyncratic and situation specific; other changes were more generalized. First, the self -reported number of supervision cycles completed by all participants had increased to an average of approximately four per year. However, the mean was inflated by the number of observations made by the A - D group, most of whom were administrators, and there was considerable variability among the participants. The content of the conferences appeared, even after three years, to be focused primarily on behaviors relating to questioning skills and students' on-task behavior, partly perhaps as an effect of the training and of the research/evaluation project. This result was not unanticipated as it is generally accepted that three years is a short time to change ingrained teaching behaviors. There were some attempts to move to more varied and complex teaching behaviors in the third year.

The nature of the conferencing behaviors appeared to have changed in directions promoted by the Model. Supervisors in the third year spent a significantly lower proportion of the conference than did an untrained group of supervisors, in providing supportive behavior (there appeared to be less need for supportive behavior when teachers' opinions were being valued), in providing unsolicited information and in providing unsolicited opinion. Over the three years of the research/evaluation project there was a change in the ratio of supervisor providing information to teacher analyzing information, from 2:1 in 1987 to 1:1 in 1988. There was a significant increase in the supervisor accepting or using the teachers' ideas and in the teacher accepting or using the supervisor's ideas, both behaviors thought to enhance the autonomy and professional development of teachers.

The videotaping of supervisory conferences was a time-consuming and occasionally threatening activity for the participants.. Over the duration of the project 77 videotapes were analyzed, each involving two persons. That in itself represents a significant commitment to the Model. The changing nature of the conferences represents a significant and positive effect of the Model.

Perceptions of Project Participants (Research Question 4a)

Prior to the implementation of the Model for Teacher Supervision and Evaluation most teachers in the system believed that supervision was an important factor in improving teaching, but existing supervision practices were seen to be less than ideal and there was little consensus as to what constituted effective supervision. Fewer than one quarter of the staff believed that supervisors were qualified or effective, and many participants were skeptical of the Model. Its implementation was seen by most teachers in the District to be due primarily to the impact of outside pressures; only 40 (14 %) of the 281 teachers indicated that the purpose of the Model was to attempt to improve teaching and most teachers felt that they were required to participate.

Nevertheless, by 1988 approximately 60% of the participants believed that supervisors were well qualified and effective and virtually 100 percent of the participants agreed with the intent of the Model. The degree of commitment to the Model ranged from a few persons who continued to be very negative to a few persons who were almost disciple-like, with the majority opinion toward the positive end of the response continuum.

Non-participants, that is those who had not yet been involved in training sessions approximately half way through the research/evaluation project, were somewhat less convinced that teachers should be supervised. They did not believe as strongly that supervision activities could improve teacher effectiveness. Nevertheless most of those persons intended to participate in the Model. Their reasons for doing so were many and varied, ranging from a few persons who simply did not believe in the process, to teachers who believed that they must participate, to those who were most anxious to do so and were feeling left out because they hadn't been chosen earlier.

With respect to perceived impact of the Model, the participants' perception was that they had received major benefits to their teaching practices and to their thinking about teaching. They suggested that an increase in professionalism was also an effect of participation in the Model. There was a perceived increase in interaction among staff members, new avenues for discussions about change, more confidence in discussing problems with a colleague, and better and more understood methods of teacher evaluation. Although many stated that they were "not doing much", that perception appeared to stem from a view of the Model as consisting only of completing supervision cycles in a formal sense. Teachers identified many ideas, techniques, strengths, areas for improvement, opportunities, and so on, that had been revealed to them or had been reinforced through the Model. For many teachers the Model had legitimized or given them a basis for talking about and sharing things they were already doing.

With respect to stages that the participants went through during the process of implementation, initially personal and informational concerns were perceived to be very high. According to Hall and Hord (1987) those concerns are very typical of persons at an early stage of change. They suggest further that a shift beyond these early stages occurs only after these concerns are resolved and often requires several years. Throughout this project the stages of concern changed little. There was, however, some shift, particularly in the G - H (1987) group toward the collaboration and refocusing stages of concern.

The Model administrators believed strongly in the Model. They indicated that their teachers were professionals and they perceived that the District culture had changed. They were clearly excited about the Model, its impact and its possibilities. They suggested that there had been a shift in their roles, that initially they had perceived themselves to be very directive but later were much less so. They perceived further that the Coaching Team had been a resounding success. This opinion was verified also by participants' perceptions. The experience had been a positive one for members of the Coaching Team and for participants in the group for whom they were responsible.

Perceptions of the time and resources available for the implementation of the Model had changed little during the duration of the project (see pages 117-118 of Chapter 6). Lack of time was clearly the major stumbling block in the initial two years of the research/evaluation project. Although time was mentioned less frequently as a major hindrance to the implementation of the Model in the third year of the project, fewer than 20 percent of the participants believed that there was sufficient time to implement or to practice the Model.

Finally, with respect to the perceived impact of the Model, in spite of the fact that participants spoke of many benefits from having participated in the Model, when asked to rate the extent to which it had actually been implemented, fewer than one-half of the participants rated its implementation at a three or four on a four-point scale. With respect to its effectiveness, the participants perceived the Model to have been particularly effective as a mechanism for conducting fair and informed evaluations, as a means for improving the supervision process and in creating an opportunity for sharing ideas and facilitating teacher communication.

Other aspects of the implications of the change process as exemplified by the Model for Teacher Supervision and Evaluation (research questions 4b and 4c) are addressed in the second major section of this chapter which describes the effects of the Model on evaluation policies and practices and the implications of the project for other jurisdictions.

Relationships Among Measures (Research Question 5)

Table 7-1 presents correlations among various variables assessed through the research/evaluation project. Because of the nature of the student achievement data and the fact that the students were different each year and numbers were small, correlations between student achievement outcomes and other variables were not calculated.

Most of the correlations between outcomes were small and very few were statistically significant. Although in the second year of the research teachers' observed scores had been significantly correlated with the students' engaged ratios, in 1988 there was no significant relationship between teachers' observed scores and any other variable; nor were there any significant correlations between students' engaged ratios and other outcomes. Most correlations that were significant were to be expected. For example, the number of times a participant had observed another teacher was significantly related to the group (A - D participants had conducted more observations) and to the number of supervision cycles completed. Beliefs about whether teachers should be supervised were positively and significantly related to extent of agreement with the Model. Interestingly, personal efficacy beliefs were also related to beliefs about whether teachers should be supervised. Perhaps it takes a certain degree of confidence or belief in oneself to support the idea of being supervised regularly. Not surprisingly, beliefs about whether there was sufficient opportunity to discuss the Model were negatively correlated with the number of cycles completed and were positively correlated with beliefs about the extent to which supervisors were qualified and with beliefs about whether time and resources were

Table 7-1

Correlations Among Selected Variables (*N*=approx. 30)

	Obs'd Score	Eng. Ratio	Group	No. Cycles	Times Obs'd Teacher	Agree with Model	Teachers Should Be Sup'd	Supv.Can Improve Teacher Eff'ness	Most Supvisors well-quallifed/ Effective	Personal Efficacy	Opp. for Discussion	Resources/ Time Adequate
Observed Score	1.00											
Engaged Ratio	-.04	1.00										
Group	.08	-.08	1.00									
No. Cycles Completed	.05	-.14	-.23	1.00								
Times Observed Teacher	-.14	.17	-.61**	.38*	1.00							
Agree with Model	.08	-.29	.13	-.04	-.06	1.00						
Teachers Should Be Supervised	-.12	.00	-.15	-.06	.01	.51**	1.00					
Supervision Can Improve Teaching Effectiveness	.10	-.10	.03	.25	.02	.17	.29	1.00				
Most Supervisors Well-Qualified and Effective	-.08	.20	-.02	-.25	-.05	.23	.15	.20	1.00			
Belief in Personal Efficacy	.12	.28	-.25	-.05	.23	.20	.44*	.32	.21	1.00		
Opportunity for Adequate Discussion	-.09	.24	.16	-.44*	-.01	-.03	-.05	.07	.39*	-.00	1.00	
Resources/Time Adequate	.13	.22	.41*	-.26	-.19	.11	-.05	-.08	.32	-.19	.39*	1.00

** $p \leq .01$, *$p \leq .05$

adequate to implement the Model.

The Evolution and Implementation of the Model

The Introduction of the Model

Participants' perceptions about how the Model was introduced to the system appeared to be somewhat hazy. In the very early stages of implementation feelings of inclusion seemed to be related directly to the extent to which persons felt they were informed about the Model. As teachers became more involved, while there was considerable anticipation, there was also a feeling from some of something having been imposed upon them. There is considerable research in the literature on change and innovation that discusses whether the implementation of a new project is more effective when it is initiated and imposed 'from the top' or when it emerges from the grass roots. We believe that the issue is not whether an innovation is imposed from the top or whether it emerges from the roots, but is rather one of communication. An idea that begins with teachers is doomed to fail no matter how much support it has from the roots if the administration does not support the idea or provide the resources necessary for its implementation. Similarly, when an idea or project begins at the top and does not include teachers in the planning, an inordinate proportion of energy and resources will be expended on encouraging participation, obtaining commitment, on trouble shooting and dealing with negative perceptions, lack of interest or outright sabotage.

Although the stimulus for the Model for Teacher Supervision and Evaluation in the Medicine Hat School District originated with school administrators, the perception was that the Model was developed and initiated at 'the top'. Also, those most deeply involved and those invited to be the initial participants in the project were administrators. Teachers were invited to participate during the early stages and in fact the A - D group was approximately 50 percent teachers; nevertheless their perception was that they were participating in a different capacity than the administrators. While the decision to focus on administrators initially may have been appropriate and perhaps even necessary, it may have been costly in terms of people energy and resources.

Once the decision was made to expand the Model to all school personnel, however, the District moved quickly to include a number of teachers on the Steering Committee, and to invite and encourage teachers to participate in the second phase of the project. Since that time teachers and administrators have been involved at each step of the implementation; communications occurred directly between the Central Office administration and staff members. Further, when the decision was made to transfer the training component to school district staff, the members selected for the Coaching Team were primarily teachers; that is, even though four of the six had administrative responsibilities, their primary responsibility was as teacher.

Thus, although the Model was conceived initially in the minds of teachers and administrators, it was implemented by Central Office personnel who provided the training, the resources, the incentives and the expectation of participation. This would appear to be an excellent example of Grimmett's (1987) conclusions that:

> The desirable mix to bring about school improvement seems to be one of decisive central office initiatives either in favor of specific programs or school-based staff development along problem-solving lines, together with ample provision of structured support and technical assistance for the program or process decided on by the district. . . . What is needed is top-down pressure and support for bottom-up involvement [and] . . . a perceptive sense of timing when to switch (pp. 27-28).

As more and more teachers participated, the responsibility for training was transferred to a group of teachers. In some schools groups, pairs or teams of teachers gradually assumed ownership of the process, and although significant numbers of teachers were not participating in the supervision cycles, 'the Model' had become a well-established part of the District culture.

Achievement of the Model's Goals

As stated on pages 3 and 128 of this report, the administrators of the Model had established a number of goals which they hoped to achieve through the implementation of the Model. What follows are the researchers' perceptions, based on three years of data collection and analysis, of the extent to which each of these goals had been achieved.

A Defensible Supervision and Evaluation System

An Evaluation System. The development and implementation of an acceptable evaluation system was one of the most successful outcomes of the Model. Participants believed that the policies and procedures were clearly defined and understood, and they generally agreed with and supported the prescribed procedures. Although some administrators continued to 'drop in' to observe teachers, the notion of the pre-conference validated the teacher's right to request that the administrator and the teacher discuss the proposed observation beforehand. The cycle had become the expectation and the norm in teacher evaluations. To the extent that administrators followed the tenets of the Model -- a pre-conference, an observation focusing on areas identified by the teacher, and a post-conference -- teachers perceived the evaluation process to be less threatening, more data-based, more helpful and more fair than it had previously been. The belief that teacher evaluations had become more data-based and more helpful was supported by Central Office administrators' comments on the detail and thoroughness of the evaluation reports that were being submitted.

A System of Supervision. With respect to whether a defensible *supervision* system had been implemented, the terminology and semantics become important. Teachers appeared to have distinguished between the concepts of supervision and evaluation in practical terms -- if a senior administrator was involved, the process was seen to be evaluation; if two teachers were involved it was supervision, or more accurately, peer coaching. After four years of implementation more than 80 percent of the teaching staff had participated in the training sessions, and a large number of those had participated in further advanced training. However, if one were to consider the Model simply to be the supervisory cycle as described, then the average number of cycles completed per year by all participants was not what had initially been anticipated, and variability was considerable, especially if we exclude from the number of cycles those conducted with an administrator (most often for the purposes of evaluation). Some teachers had completed only the cycle required as part of the research project; others had progressed well beyond expectations and completed as many as six or eight cycles per year; still others had developed creative ways of modifying the process while maintaining the principles of peer coaching and had taken the process well beyond its initial definition.

The issue of time was a difficult one and was addressed in considerable detail in earlier reports. Time was addressed both as a pragmatic, concrete, solvable problem, and as a measure of support for, or resistance to change. As a pragmatic issue there were the difficulties of busy people with fully committed schedules, of conflicting timetables, of preparing for substitute teachers, of working with other people's agendas. As a measure of support or resistance the issue was one of determining priorities. Although the School District made heroic efforts to provide substitute teachers and release time, and to provide whatever resources were needed, and even though some school administrators were willing and able to schedule observations and conferences, the reality of a teacher's daily life ensures that 'time' will remain a major hurdle in implementing change of this magnitude.

One other issue militating against effective peer supervisory relationships was the nature of the partnerships. Where partnerships were formed for the sole purpose of participating in the supervisory cycle, they were often less than effective, either because the partners did not have similar interests or because one partner did not have the expertise the other was seeking. Partner changes and long time lapses between cycles also contributed to a less than effective supervisory system in some cases.

More Teacher Observations

A significant strength of the Model was that it encouraged teachers and administrators to take risks, and to a large extent it succeeded. It was apparent from every data source that classroom intervisitations were a common occurrence. In some schools teachers regularly visited each other's classrooms and some observations even occurred across schools. Clearly, teacher observations occurred more frequently in some schools than in others but the extent of the activity within the District was quite remarkable. It is a tribute to the Model administrators, and in particular to individual teachers and school administrators, that they were willing to expose their teaching, their pedagogy and their beliefs to their colleagues. Developing a trusting relationship in which one is willing to become vulnerable is a significant step in the professional development process, and it is our perception that a large proportion of teachers and administrators in this District have become willing to expose and share their teaching with colleagues. It is also our belief that we could not make that statement about many school districts.

Improved Teaching Performance

It is difficult to determine the extent to which teaching performance had improved as a direct result of participating in the Model. For those teachers in the research sample, their observed scores did increase slightly, but not significantly; they perceived that they were identifying teaching strengths and areas for improvement, and considerably more teacher talk was focused on teaching. It is very likely that these improvements were at least partly a result of participation in the Model, but it is also possible that they resulted from participation in the research/evaluation project or simply from experience.

Students Feeling More Positive and Learning More

We had no measures of students' feelings except the classroom climate data which failed to show meaningful results. With respect to student achievement, as stated earlier, we were unable to demonstrate that students were 'learning more'. However, a number of teachers expressed the belief that their students were benefitting from their participation in the Model.

The Development of a Supportive, Sharing Culture and the Evolution of a Profession

These two goals are discussed together because they appear to us to be related. In our opinion the 'culture' of the Medicine Hat School District is clearly different from and more professional than many, if not most school districts, and we believe that much of its success is due to the Model. We cite the following in support of this statement:

- the number of teachers involved in the Model; more than 80 percent of the teachers have participated in training; another 30 teachers were turned away in the fall of 1988,
- the large numbers of teachers who continued to attend sessions related to the Model on their own time, even after their training year was complete; for example, 52 teachers attended an evening workshop on using the Model with student teachers,
- the 'feeling' of camaraderie and the very considerable talk about teaching evident even at social gatherings,
- the District's approach to curriculum implementation and the number of teachers collaborating on implementation projects,
- teachers' responses to school evaluations; on a number of occasions teachers asked members of the school evaluation teams to follow the procedures of the Model when visiting their classes,
- the relationships among teachers, school administrators and Central Office staff; for example, members of the Coaching Team publicly suggested to the Superintendent how the Model should proceed in the future,
- the positive atmosphere within Central Office and the obvious faith in the expertise and quality of the teaching staff as illustrated in the following comment by a Central Office administrator: "The Medicine Hat curriculum implementation process has gone past the jargon of empowering teachers; we *know* our teachers will assume that responsibility",
- the expressed willingness, even eagerness, to affiliate further with the University of Lethbridge, and to have "as many students teachers as you can send" placed in the Medicine Hat schools,
- the large number of teachers and administrators who attended the Alberta Leadership Academy, and various workshops by outside experts,
- the large number of teachers and administrators who met regularly and frequently as the Project Steering Committee to guide the implementation of the Model,

- the obvious dedication of the Coaching Team to the principles and procedures of the Model and their commitment to practice,
- the evolution of the language used to describe supervision and evaluation, and finally
- the 'sense' in many of the schools that occurs when teachers clearly know what each other is doing, when they are comfortable in each other's classrooms and when they collaborate on a regular basis.

A comment expressed by a member of Alberta Education on a visit to Medicine Hat in January of 1989 summarizes the previous statements: He suggested that change of this nature usually requires a minimum of from five to six years, with the median being closer to 10 to 15 years. Experiencing change within three years is "like a jet".

In summary, many Medicine Hat School District schools exemplified most, if not all, of the characteristics of schools considered by Little (cited in Howey & Vaughan, 1983) and described on page 42 of this report to distinguish schools successful in implementing change from those which were less successful. The following are examples:

a) "Teachers engaged in frequent, continuous and increasingly concrete and precise talk about teaching practice" (Howey & Vaughan, p. 107). There was evidence of this characteristic from the interviews, the videotapes of conferences and from formal and informal interviews.

b) "Teachers and administrators frequently observed teaching" (p. 107). Evidence for this behavior was obtained from observations, surveys and interviews.

c) "Teachers and administrators planned, designed, researched and evaluated, and prepared teaching materials together" (p. 107). This was becoming increasingly obvious in Medicine Hat, particularly as evidenced by the increasingly successful collaboratively planned curriculum implementation projects.

d) "Teachers and administrators teach each other the practice of teaching" (p. 107). This was an area just beginning and was targeted for further action.

Factors Enhancing or Hindering Success

Throughout the three years of this research/evaluation project it has become apparent that, although the Model has had a significant positive impact on the District as a whole, within individual schools and among individual teachers, there were clearly some situations in which it was more effective than in others and in which effects were far more obvious and more entrenched than in others. We have identified from our research a number of factors which appear to have been most influential in enhancing or hindering the success of the Model. These are discussed within three categories: 1) contextual factors, 2) individual factors, and 3) factors relating to the Model itself. These are diagrammed in Figure 7-1, but it must be understood that each of these factors interacted with each of the other factors within and across categories, and it was the particular configuration of these factors, and probably others, that determined the extent to which the Model was successfully implemented.

Contextual Factors

The context in which teachers work plays a major role in the degree to which they accept or reject a significant intervention in their working lives. Among these contextual factors which appeared to influence the Model's success were the historical context, the culture of the school and the District, characteristics of the school staff, and school schedules and timetables. For example, a transitional characteristic of one of the schools was the adjustment to a new administrative team. The school was a relatively new one where the first principal had been appointed to the school before it was built and was allowed to select the staff who would teach in the school. Once that team was in place it remained fairly stable for the first few years of operation. When a new administrative team was appointed a period of adjustment was required to allow the staff to acquaint themselves with a different administrative philosophy. The Model was introduced into the school while that transition was still in progress. Although it is impossible to assess the effects of this on the impact of the Model in the school, it is accurate to say that this change in administration just before the introduction of the Model was a part of the historical context and culture of the school in which the Model was injected and played a role in the way in which the Model was received, viewed and implemented.

The characteristics of the school staff played a similar role. In some schools

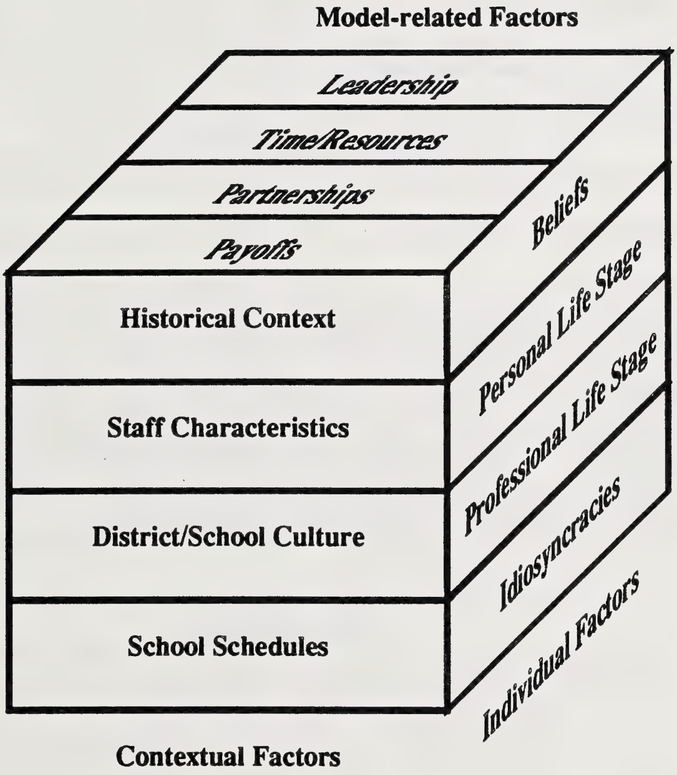

Figure 7 - 1: Factors Influencing Success of Model Implementation

members of the teaching staff had been teaching in the school for a number of years and by virture of their longevity had assumed leadership roles within that school. Their receptivity to the Model and their willingness to integrate the goals of the Model into their own practice became key to the success of the Model in that school. Thus the involvement and support of key people in the school was critical. In schools where the staff had been together for some time and had developed both a social and a professional relationship, the implementation of the Model appeared to be considerably smoother.

A further contextual variable was the influence of school timetables and schedules on the implementation of the Model. In one school, staff involvement in supervision and extracurricular activities was such that it was very difficult to find sufficient time to meet collegially to even begin discussions about the Model. Regardless of the willingness of the staff to participate, the scheduling in the school made the implementation of the Model virtually impossible, to the extent that a fundamental restructuring of the school day might be necessary before the Model could be effectively implemented.

Individual Factors

As individuals within a particular context, each teacher's beliefs -- about the purposes and structure of the Model, about the motives of others, about the autonomy of teachers, about supervision and evaluation -- played a role in the degree to which they were receptive to the notion of the Model in the first place, and in the commitment they were willing to make. Teachers' personal and professional life stages were also factors. For example, a young teacher with many family commitments found the scheduling of after -school events very difficult; an experienced teacher who was close to retirement saw little reason to participate. Similarly, some teachers who had considerable related training or experience with supervision models did not perceive a need for strong commitment to the Model. Individual personality traits and interpersonal relationships were also factors that influenced the implementation of the Model.

Model-Related Factors

Perhaps the major factors identified from our research as contributors to the success or failure of the implementation of the Model were those related specifically to the Model itself. These factors are those which impact on most major change efforts, and because these appeared to be so critical they are discussed individually.

Leadership

In our view, leadership was the single most influential force in the implementation of the Model. Leaders, in some cases single-handedly, thwarted or enhanced the success of the Model. Leadership appeared in various forms: as behaviors, either overt action or simple lack of interest, which presented obstacles to those who wished to participate in the Model; as rhetorical support for the Model where persons professed support, but where actions were not congruent with the rhetoric; as real support in the form of allowing and encouraging participation; and finally, as direct promotion of the Model through modelling and full participation, or timetabling activities to ensure participation, or even substituting in a teacher's classroom so he or she could observe or conference -- in short, demonstrating congruence between words and practice. Leaders were not necessarily administrators, though without at least verbal support from the school administrators, it was difficult for teachers to assume the leadership role. Nevertheless, in those schools or situations in which the Model, or a variation of it flourished, someone had assumed a leadership role in the sense of modelling, organizing and in every sense facilitating the process.

Leadership at the District level was also a significant factor in the success of the Model. The Central Office personnel provided far more than the financial resources required for an innovation of this nature; they provided leadership in the most positive sense of the word. In addition to the very substantial and basic support in the form of release time, the provision of substitute teachers, and the provision for regular and ongoing training and practice sessions, the District administrators demonstrated their commitment to the Model in countless other ways -- from sponsoring recognition banquets and publicly praising and rewarding the participants, to actually substituting in classrooms to allow teachers to observe and conference with each other. Their belief in the process of the Model and in the benefits of collegial supervision, and their trust and faith in their teachers was obvious and genuine. This type of committed leadership also appeared in the Steering Committee, in the Coaching Team and in the various 'pockets' and schools where there was significant activity.

To paraphrase Little (cited in Howey & Vaughan, 1983) successful school relationships and activities are enhanced in powerful ways by the perspectives and practices of leaders. Although Little was speaking specifically about principals, his comments apply equally well to all leaders who contribute to successful change by "*announcing and describing* expectations for collegial and experimental work . . . , *modelling or enacting* the desired behavior . . . , *sanctioning* the announced and modelled behavior in the allocation of resources . . . , [and] *defending* the norms thus established . . . " (p. 108).

Time and Resources

The issue of time has been raised in virtually every chapter of this report and in earlier interim reports. What teachers seemed to be saying was that the success of the Model required the time to be able to implement its goals. Resources needed to focus on providing that time to the teachers and administrators. In many cases this necessitated supporting teachers in ways which they determined were best suited to their needs. The lack of time to implement the Model was also a reflection of a larger issue about the working reality of classroom teachers. This seemed to be more obvious at the elementary level where many of the comments made reflected the very busy schedules and heavy teaching loads of many of the teachers. The success of the Model seemed to depend in part upon developing a perception that this was not something which would be added on to already busy schedules, but rather that it must be incorporated into exisiting routines.

Partnerships

Partnerships were originally established between administrators and teachers, resulting in an early perception of the Model as evaluative rather than collegially supervisory in nature. The shift in this perception to supervision was gradual and occurred as more collegial pairings were established. The formal establishment of partnerships also neglected or negated in some ways the number of informal partnerships which were in existence. A number of teachers indicated that much of what the Model tried to do in a formal sense was already being done in an informal setting through the cooperative and collaborative work of various groups in the schools. Some found it difficult to shift their informal supervisory practices to what they perceived to be the more formal setting of the Model. Finally, where partnerships were created out of mutual need or respect or common interests, they appeared to be more successful.

Payoffs

Critical to the Model was the need by all those involved to see the benefits of their investment to themselves as practising teachers. For those who were already engaged in collegial supervisory practices with colleagues, the Model supported their own empowerment and rewarded their professionalism with acceptance and recognition. Attention to their teaching practices was welcomed, encouraged and supported both by administration of the school and by the District.

Some teachers who were experiencing difficulty with their own practice were able to use the Model as a vehicle for obtaining the assistance and support they required to overcome their difficulties. The Model provided the framework to discuss needs in a professional context and gave the tools with which to analyze practice and establish alternatives.

The Model neeeded to be seen as beneficial to the working reality of each of the participants and as something that would help them with their own teaching and learning. The benefits needed to be viewed in this context and although the political advantages of recognition dinners and the like were important, the major variable was the extent to which participants could see the Model as helpful to their own day to day teaching practice. Critical to this seemed to be the role of the Coaching Team. The Team allowed other teachers to see that the direction of the Model rested with colleagues who focused on classroom practice and peer coaching as the future direction for the Model.

Future Directions

We believe that the Model for Teacher Supervision and Evaluation is sufficiently integrated within the Medicine Hat School District that even if all the supports were to be withdrawn, teachers would not return completely to their 'pre-Model' levels of intervisitations, conferencing, evaluations and so on. However, like other large implementation projects it would in all likelihood fade without continued support and nurturing. In this section of the report we suggest possible strategies for celebrating and furthering the successes of the Model, for capitalizing and expanding on areas where success is just beginning, and for nurturing other areas where there has been less involvement.

Celebrating Successes

Major successes of the Model for Teacher Supervision and Evaluation, in our view, include the development and implementation of a workable and generally well -understood and accepted system of teacher evaluation, the development and evolution of a team of teachers and administrators who have assumed significant leadership roles in the

District, the very high level of teaching observations and intervisitations that occur between and among teachers, the evolution of a District culture that values teacher expertise and supports teacher initiatives and in which teachers feel safe enough to risk exposing their teaching to others, and some 'pockets' where individuals have progressed beyond intervisitations and conferencing to metacognition and reflection and in which they have expanded the Model well beyond its initial parameters.

In order to ensure that these exciting initiatives and successes continue to flourish we suggest:

1. that resources continue to be allocated to allow initiatives such as these to continue,
2. that inservice for adminstrators who conduct evaluations be maintained, to reinforce the value of pre-conferencing and to help administrators move toward greater teacher control during the conferencing process,
3. that pairings and groupings between and among schools be encouraged and facilitated,
4. that District-wide meetings and collective sharing opportunities be promoted,
5. that there be public recognition and celebration of activities such as these, not only for the District as a whole, but to recognize specific activities or groups of people, and
6. that participants be encouraged to document their experiences, through autobiographic, multimedia, or case study approaches, and to share these at staff, District or other gatherings.

Capitalizing on Beginnings

There are several situations in which many good things are happening but where participants have not truly assumed ownership of the process, where they continue to require external motivators to encourage their participation, or where they appear to have reached a plateau in their development. Prominent among these are the peer supervision or coaching process for most participants, and the impact of the Model on actual classroom practices and student learning. Many teachers, although they may observe each other frequently, are unclear about how to work with each other in a helping relationship. It is in this category -- when teachers believe that there is something worthwhile to be done but are not sure of what it is or how to go about it -- that issues of time, of partnerships, of leadership and of commitment become critical. Therefore, we make the following suggestions to further the process of peer supervision and its impact on classroom teaching:

7. that peer supervision be maintained as a high priority; this seems to be where the most immediate and beneficial rewards are felt by the teachers,

8. that teachers choose partners with whom they have common interests and with whom they would like to work, and that together they develop a plan for their participation,

9. that a series of workshops be provided on teaching strategies dealing with areas identified by the teachers, that go beyond the relatively comfortable areas of questioning and time-on-task,

10. that administrative mechanisms for overcoming issues of time be explored; for example, rather than provide substitute teachers, have extra staff (or long term substitutes) who completely take over a semester course or elementary subject for a number of units,

11. that consideration be given to altering school timetables where necessary to facilitate observations and interactions among teachers and administrators,

12. that staff pairs or groups be rotated through 'peer supervision semesters' in which concentrated work with the Model can be carried out. Perhaps teachers would be required to go through a peer supervison semester once every three or four years, depending on resources,

13. that persons who have a strong commitment to the principles and practices of the Model be assigned to leadership positions in the District and in schools, and

14. that consideration be given to developing a different, less hierarchical language to describe what is being attempted in the District (for example, the notion of supervision continues to imply a vertical relationship).

Nurturing the Possible

There appear to us to be at least three areas into which the Model could productively be expanded and all of these are currently being explored by the District. The Model has already been expanded into the area of the implementation of new curriculum initiatives, and discussions are currently underway to move into the areas of administrator evaluation and the involvement of preservice student teachers. Two other issues are those relating to 'uninvolved' teachers and those relating to the last of the three components required in a successful peer supervision model, that is, reflection or metacognition. We suggest the following in these areas:

15. that the District collaboratively evolve a policy and a mechanism for using the Model to evaluate and assist administrators,

16. that the District and the University of Lethbridge Faculty of Education collaboratively evolve a mechanism for using the Model to supervise and assist student teachers,

17. that continued emphasis be placed on assisting participants to develop skills of reflection, to critically assess their own and their partner's teaching and to progress beyond the phase of description to that of metacognition,

18. that those few teachers who clearly do not wish to participate in the processes of the Model be provided with opportunities to see the Model in practice so that they may come to a different sense of how the process may be beneficial to them.

Advice to Other School Districts

Our experience with the evaluation of the Model for Teacher Supervision and Evaluation suggests to us that if other districts wished to implement change of this nature, there are a few 'non-negotiables' required for even the possibility of success. Briefly, these are:

1. teachers must be involved very early in the planning of any implementation; this is not to say that the idea must originate with teachers, but that they must be full participants from the beginning,

2. the District must be prepared to commit significant resources to the undertaking, in terms of time, money and personnel,

3. the implementation plan must be long-term; while short-term goals are important, it is necessary to realize that change of this nature requires a commitment of several years,

4. the leaders of the project must be committed in word and in action; they must serve by example rather than by rhetoric,

5. it is essential to gain the support of the School Board and the public; public relations are important,

6. it is important to 'take the high ground'; energies should be focused on committed leaders and their belief in teachers' expertise should be genuine.

A Brief Meta-Evaluation

Evaluating change of this nature is fraught with difficulty and evaluation projects that provide evidence that change has occurred are very rare in the literature (see Chapter 2). In this very brief section of the report we address three issues: 1) specific evaluation techniques, 2) the interactive relationship between the research/evaluation project and the Model, and 3) the relationship between researchers and participants and the difficulties associated with intensive, long-term evaluations.

Specific Research Techniques

Some of the research techniques and data collection instruments chosen to collect data proved not to be as effective as they might have been. In particular, assessing teaching by observing teachers once each year for three years, and recording their scores on pre-determined categories of behaviors is based on a particular view of teaching that may not have been appropriate for many teachers in the project. It is a procedure that was also inconsistent with the premises of the Model. Similarly, the use of standardized test scores to assess the impact of the Model on student learning, suggests a somewhat narrow view of learning. Combined with the difficulty of obtaining accurate data from different students every year, this procedure proved not to be an effective method for assessing student learning. In retrospect, it may have been more appropriate to focus on a smaller sample of teachers and to develop with them appropriate strategies for identifying the impact of the Model on their teaching and on their students.

In our view, the strategies that provided the most thorough, insightful, accurate and helpful information were the interviews, surveys and case studies, and all of those intensive interactions between researchers and participants.

Interaction Between the Model and the Research

At the outset of the research/evaluation project it was stated by the Model administrators that the research/evaluation project would not interfere with the Model; that is, if a teacher were reluctant to participate in the Model because of being selected for the research sample, he or she would be withdrawn from the research project. This did, in fact, happen on some occasions. However, also stated early in the project was the expectation that feedback from the research would be provided on a regular basis so that the Model could benefit immediately from findings of the research. This, too, was the case. There was also an implicit assumption that the research/evaluation project would help to 'drive' the Model; in other words, simply having external evaluators examining the process would give the Model a certain credibility and impetus. These interactions had both negative and positive effects.

On the negative side the extra demands the research/evaluation project placed on the teachers -- to complete surveys, to schedule observations, to be interviewed, to videotape conferences -- served to put extra pressure on already busy teachers, and perhaps appropriated time that might have been spent on other Model-related activities. The videotaping in particular, caused discomfort, confusion and occasionally outright hostility. Another negative effect was that the kind of data being collected (e.g., videotaping supervisory conferences) may have reinforced a somewhat narrow definition of the Model.

However, we believe that these potentially negative effects were more than offset by the positive impact of the research/evaluation project in terms of Model credibility and as a stimulus for activity. For example, administrators occasionally talked about implementation as if more was happening than actually was; they *wanted* the Model and themselves to be well presented. However, action often followed. Another example was a situation where the research team announced at a staff meeting that one of the case study schools had preferred not to participate; immediately after the meeting several members of that school indicated their desire to continue. Similarly, discussions at the end of the second year of the research/evaluation project identified specific behaviors that might be addressed in the conduct of supervisory conferences. Many of these behaviors did change significantly in the final year of the project. Simply being required to be observed, to conference and to identify the number of cycles completed served as a stimulus for some teachers to participate more than they might otherwise have done.

The Nature of Intensive Interactions

Members of the research/evaluation team spent countless hours over a three-year period interacting with Medicine Hat teachers and administrators, visiting schools, observing and talking with teachers, attending meetings, participating in activities, attending social gatherings, and so on. We believe that these interactions allowed participants to feel comfortable with the researchers and to be open and honest with us. At the same time it was possible for a researcher to be 'co-opted' by the views of one school staff or administrator or group of teachers who had strong opinions. We believe that we have addressed the possibility that personal bias or opinion might have affected our interpretations through three strategies: 1) we submitted for verification by the participants almost everything that we wrote; 2) we used a wide variety of quantitative and qualitative data collection techniques, and 3) we conferred regularly and frequently as a research team and through collegial deliberation and dialogue were able to reflect on our own analyses.

Suggestions to Alberta Education

Four items come to mind when we consider the role of Alberta Education in this project. First, of course, is gratitude for providing adequate resources to conduct a comprehensive evaluation of the Model. Second is the difficulty of providing conclusive evidence for the success of such a complex project in just three years. While three years appears to be a considerable length of time, it is a very short period in which to create and demonstrate District-wide change that becomes an integral part of a teacher's day to day reality. Given the resources committed to both the implementation and evaluation of the Model and its success as documented in this report, it would appear to be sensible to conduct a follow-up evaluation at some future date, perhaps in two years.

A third item is the design of the research/evaluation project. It has become increasingly apparent from this study and others that students' scores on standardized tests are difficult and expensive to obtain in a manner that provides meaningful interpretations, and that they assume a narrow definition of student learning. In future research projects perhaps alternative or additional measures of student learning would be more appropriate. Similarly, observing a classroom teacher once a year to assess change in teaching behaviors is extremely expensive and time consuming and provides questionable data. In our view it would be more appropriate to select a small sample of teachers and/or schools and conduct intensive, frequent observations along with other data collection procedures.

Finally, as this research project unfolded and as it came to an end a number of questions remained unanswered and a number of other questions arose. Some of these might profitably be addressed in future research studies, sponsored by Alberta Education and/or through the collaboration of the Medicine Hat School District and other partners such as the University of Lethbridge.

Suggestions for Further Research

Some of the following projects require minimal resources; others would require major funding.

1) The impact of the Model on classroom teaching and student learning has not been adequately addressed. Future research might select a small group of teachers and students for more intensive study using a variety of research methods.

2) The classroom climate measures identified some interesting themes. It would be worthwhile to explore these with teachers and assess their impact on students.

3) A follow-up study on the changes in the Model, the impact of the evaluation report, and the effects over time would appear to be essential.

4) Several studies appear desirable on specific aspects of the Model; for example, the curriculum implementation proposals, effects on the Coaching Team, personal stories of individuals involved in the Model, longitudinal case studies of particular schools, and studies involving collaborations between, say, a "successful" and a less successful school.

5) It would appear that, given the successes of this project, others similar to this might be attempted (perhaps on a smaller scale) in other Districts.

Concluding Statement

A research report such as this does not convey the exuberance, enthusiasm and excitement that accompanied the implementation of the Model for Teacher Supervision and Evaluation in the Medicine Hat School District. Nor does it capture the individual commitment, the risk-taking, and the energy devoted by countless participants. In our view the Model for Teacher Supervision and Evaluation in the Medicine Hat School District is one of the most ambitious, exciting and successful ventures attempted by a school district of this size. Certainly the Model cannot claim 100 percent success; nor is it ever likely to because of its evolving nature. Nevertheless, even in three short years, the Model has had a significant, demonstrable positive impact on the District's teacher evaluation system, on peer supervision, on teachers' behaviors and perceptions, and on the District culture. Clearly the Medicine Hat School District is a district with a vision and an implementation strategy, and other school districts who wish to implement significant change could find no better model.

"We shall not cease from exploration
and the end of our exploring
will be to arrive where we started
and to know the place for the first time."

T.S. Eliot: *Four Quartets*

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APPENDIX A

Model for Teacher Supervision and Evaluation Steering Committee Members

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1988-89

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APPENDIX B

Results of the Classroom Enrichment Index I and II

by Julie Ellis and David Smith

Classroom Enrichment Index I and II

This appendix presents results from analyses of responses to the two instruments -- Classroom Enrichment Index I (CEI - I), which was administered to the eleven participating Grade 6 classes, and Classroom Enrichment Index II (CEI - II) which was administered to the ten participating Grade 9 classes and the eight participating Grade 12 classes. The first sub-section presents results from the objective items of these questionnaires. The second sub-section provides an analysis of the responses to the subjective, open-ended response items of the CEI - I and CEI - II.

The two instruments, Classroom Enrichment Index I and II, were developed in previous studies of enrichment classes in New Westminster and Chilliwack, B.C. Groups of students in the New Westminster study were interviewed to learn what they experienced or valued in their enrichment or "challenge" classes. The interviews were tape recorded and transcribed and sample student comments were taken from the transcriptions to become items in questionnaires.

Enrichment classes generally attempt to give particular emphasis to the following:

- challenging students
- promoting love of learning or making learning enjoyable
- helping students to discover and develop interests and talents
- developing autonomous learner skills and attitudes
- enhancing human development in the areas of:
  - intellectual ability
  - creativity
  - communication ability
  - leadership ability
  - social and emotional growth
  - group skills
  - moral reasoning

These goals or objectives, while often given particular emphasis in enrichment or gifted programming classes, are not the exclusive domain of such programs. Rather, these goals can be found in one form or another within the philosophy statements of educational institutions at the provincial, school jurisdiction and school building level.

All teachers have the opportunity and responsibility to attend to these aspects of the education of their students. The extent to which teachers provide for their students' growth and development in the areas listed above is not necessarily reflected in achievement test scores or "engaged time" records. The instruments, Classroom Enrichment Index I and II, are intended to obtain global profiles of students' perceptions of the enriching or human development aspects of this classroom experience.

It is expected that effective teaching will result in the kinds of student outcomes or benefits identified in the Classrooom Enrichment Index I and II. The general purpose for using these instruments in this study is to provide a means for documenting and acknowledging teachers' accomplishments in these areas. For the purpose of noting change over the course of the study, the unit of analysis is intended to be the grade level rather than individual teachers. Each class of students presents different opportunities and constraints for enriching classroom practices and activities. Therefore, it is not reasonable to track change for each individual teacher. Rather, all teachers at a given grade level will be considered together to note change over time in the study.

Responses to Objective Items

Grade 6

The Grade 6 classes completed the Classroom Enrichment Index I. This questionnaire presented fourteen possible classroom benefits as items with which students were to indicate agreement, disagreement, or uncertainty. A copy of this instrument is included as Appendix H.

Table A indicates the percentages of students overall and within each class who expressed agreement with each of the items. It was noteworthy that for all classes combined, the large majority of the students (58% or greater) expressed agreement with thirteen of the fourteen items.

The item, "12. In this class, I'm not afraid to express my ideas", obtained the lowest overall rate of agreement (53%). A number of conditions can contribute to students' reluctance to

Table A: Percentages of Students Who Expressed
Agreement With Items on CEI - I in Grade 6 (N = 239)

		Individual Classes										
	All Students Combined	1	2	3	4	5	6	7	8	9	10	11
1. Have to work to do well in class	69	36	74	89	71	62	29	82	68	59	87	89
2. Helps me get interested in new things	74	96	74	78	71	69	62	100	54	77	74	74
3. Many activities in class are fun to do	82	96	91	78	79	81	57	90	71	71	96	89
4. Helps me find new things I am good at	70	77	78	67	79	75	67	91	50	59	70	70
5. I get to work on things that interest me	65	91	65	52	71	62	48	78	46	65	70	74
6. The teacher expects good work	90	96	100	96	83	94	90	100	96	88	74	82
7. I am proud of my work in school	80	82	78	48	79	100	76	82	82	88	87	85
8. In this class learning is interesting	72	86	86	52	79	69	48	73	57	77	87	85
9. In this class I am learning to think	62	77	74	33	67	69	57	46	44	35	78	88
10. I try to do more difficult things	59	64	61	44	75	62	38	46	64	53	65	63
11. Helps me doing projects with other students	67	91	74	74	50	62	33	91	46	76	70	85
12. I am not afraid to express my ideas	53	68	74	37	83	50	29	18	43	71	52	48
13. Helps me at solving problems other ways	76	91	74	74	88	88	43	91	71	53	91	74
14. We have interesting discussions	77	77	83	78	75	88	57	73	64	82	91	85
Number of items for which 58% or more of the students expressed agreement	13	13	14	8	12	14	4	11	7	11	13	13

express their ideas: peer pressure for conformity; peer group intolerance for ideas that they don't understand; peer group punishment of students who demonstrate too much enthusiasm for school topics or subjects; and/or teacher emphasis on a "one-right-answer" view of learning and knowledge. It is the teacher's work or art to establish a classroom environment wherein all ideas are considered to have value. Instructional strategies such as the use of creative problem solving techniques provide a means for working constructively with divergent ideas. In the general course of daily lessons, however, it should be acknowledged that in classrooms with students of a wide range of abilities, it can be difficult for the teacher to fully respond to speculations or unusual thoughts or questions on the part of individual students.

The highest overall rates of agreement were obtained for the following five items:

6. In this class, the teacher expects good work. (90%)
3. Many activities in class are fun to do. (82%)
7. I'm proud of my work in school. (80%)
14. In this class, we have interesting discussions. (77%)
13. This class helps me get better at solving problems in new ways. (76%)

These results suggest that, overall, teachers in participating classrooms are communicating high expectations, successfully encouraging students to take pride in their work, making learning activities enjoyable, providing for engaging discussions, and enhancing problem solving skills for a very large majority of the students.

The lowest overall rates of agreement were obtained for the following five items:

11. This class helps me get better at doing projects with other students. (67%)
5. In this class, I get to work on things that interest me. (65%)
9. In this class, I'm learning how to think. (62%)
10. In this class, I try to do more difficult things. (59%)
12. In this class, I'm not afraid to express my ideas. (53%)

While these agreement rates are far from low (67% to 53%), they identify student benefits for which there is more variability from one classroom to another.

Group project work poses a special management task for the teacher. Some teachers may also avoid it because of a concern for having all students independently complete tasks that will more clearly indicate individual learning outcomes. Group project work, however, provides for growth in social development, emotional development, communication ability, leadership, and intellectual development through the challenge of having to coordinate one's thoughts, ideas, and activities with those of others. These areas of human growth and development are as much the teacher's responsibility/opportunity as are curriculum objectives.

Finding linkages between students' interests and curriculum content can be more challenging with some classes of students than with others. In classes where it is most difficult, teachers ought to have encouragement and, if needed or desired, consultative support to find ways to work from the students' own lived experiences to the curriculum.

Thinking skills and the whole topic of metacognition have become widely recognized as warranting attention and emphasis in school classrooms. This may be an area where opportunities for professional development would be desirable.

"Trying to do more difficult things" means either responding to or seeking out challenges. Two obvious factors contribute to a student's challenge orientation. Does the student know how to organize his/her efforts in order to try to do something they haven't undertaken before? Is the classroom environment one in which risk-taking is supported? Certainly, the elementary grade years are the ones in which "learning to try hard" is best fostered.

Table A identifies the number of items with which the large majority of students (58% or greater) in each classroom expressed agreement. In all but one class, the large majority of students identified half or more of the items presented as benefits that they were experiencing in their classrooms. This can be interpreted as a strong positive comment on the enrichment value of the students' classroom experience. The detailed discussions of results presented above identify instructional ideas or problems that may be of interest for further attention.

Grade 9

The Grade 9 classes completed the Classroom Enrichment Index II. This questionnaire presented 18 possible classroom benefits and one possible negative outcome as items with which students were to indicate their extent of agreement or disagreement on a likert type scale. A copy of the instrument is included as Appendix H.

For all classes combined, the overall percentages of students selecting the response option, "Sometimes true, sometimes false", ranged from 19% to 40% with an average of 28.5%. In the data analyses, the response options, "True" and "More true than false", were collapsed to identify the percentages of students expressing agreement with each of the items.

Table B indicates the percentages of students overall and within each class who expressed agreement with each of the items. For all classes combined, the large majority of students (58% or greater) expressed agreement with only one item, "15. You have to work hard to do well in this course" (61% agreement).

The lowest overall rate of agreement (18%) was obtained for the item, "4. The atmosphere in this class makes you feel like working." Students participating in Challenge classes in secondary grades in the New Westminster study discussed this classroom characteristic as a quality that came from the students in the class through their shared valuing of learning and doing well. They said that "when you didn't feel like working, your friends got you going again." Atmosphere for working was part of the "esprit de corps" of the class. This group spirit or working atmosphere in junior secondary enrichment classes was not greatly evidenced in the Chilliwack study however. Student characteristics, subject matter characteristics, physical facilities, time scheduling, and school climate (public recognition) for academic excellence (as much as for athletic excellence) can all contribute to difficulties in establishing a working atmosphere in the classroom. This aspect of the classroom would appear to be a worthwhile focus in continuing work on effective teaching. It is an unkind state of affairs that while the largest percentage of students agree that they have to work hard to do well in their courses, the smallest percentage of students find that the atmosphere makes them feel like working.

The highest overall rates of agreement were obtained for the following five items:

15. You have to work hard to do well in this course. (61%)
5. You're not afraid to express your ideas in this class. (57%)
8. The class discussions make the course interesting. (55%)
2. In this class, topics are covered in depth. (54%)
3. The teacher has high expectations of students. (53%)

Table B: Percentages of Students Who Expressed Agreement With Items on CEI - II in Grade 9 (N = 218)

	All Students Combined	Individual Classes									
		1	2	3	4	5	6	7	8	9	10
1. Get work done because of behavior of students	33	41	61	54	44	4	18	100	75	12	4
2. Topics are covered in depth	54	70	70	54	65	50	36	18	62	44	48
3. Teacher has high expectation of students	53	59	65	50	70	41	54	18	71	54	39
4. Atmosphere makes you feel like working	18	18	48	18	22	9	18	100	25	12	4
5. Not afraid to express your ideas	57	67	56	46	56	54	46	59	50	62	70
6. Easy to pay attention as lessons move quickly	37	30	61	18	56	36	27	35	54	15	35
7. Assignments give room for creativity	31	44	4	32	39	23	54	6	29	23	61
8. Class discussions make course interesting	55	78	64	36	91	59	36	24	52	50	39
9. Oral presentations increase confidence	31	22	9	14	44	18	18	6	67	52	44
10. Course is challenging and stretches ability	37	30	61	27	35	27	36	29	67	31	23
11. Learn how to discuss ideas effectively	43	59	35	32	83	36	9	18	58	27	48
12. Like the projects or assignments	37	56	41	36	30	32	82	41	29	15	35
13. Competition makes you work harder	26	33	59	32	22	14	18	12	50	100	13
14. Don't like the pressure of competition	24	22	26	23	30	23	18	12	33	31	14
15. Have to work hard to do well in course	61	67	74	82	65	64	36	47	75	62	22
16. Helps find new things to be interested in	39	37	48	48	65	36	54	24	39	19	35
17. Makes you want to learn more	28	39	48	36	35	27	27	18	25	4	22
18. Gives opportunity to think and develop ideas	43	59	26	32	65	41	46	29	58	12	59
19. High level of thinking takes place	41	52	83	36	52	36	27	18	62	12	17
Number of items for which 58% or more of the students expressed agreement	1	7	9	1	7	2	1	3	9	3	2

These results suggest that the most commonly experienced benefits relate to: working hard to do well; freedom to express ideas; interesting class discussions; indepth coverage of topics; and high teacher expectations. It should be noted, however, that except for item number 15, no item obtained a large majority agreement (58% or greater) by more than four of the ten classes. Thus, even the most prevalently perceived benefits are highly variable among the classes.

What is perhaps more interesting than the fact that a large majority of students in most classes did not perceive benefits identified with items, is that a small percentage did. For all benefits items, a small percentage rather than no students expressed agreement. It may be argued that some students will always try to be positive in responding to a questionnaire. However, it may also be argued that it is simply very difficult to present course content in junior secondary classes in a way that is equally engaging and challenging for students with a wide range of abilities, interests, and attitudes about school learning. Consequently, some students may perceive themselves to be experiencing certain benefits while other students in the same class do not.

The lowest overall rates of agreement were obtained for the "benefits" items listed below:

7. The assignments we do give room for creativity. (31%)
9. The oral presentations increase our confidence in speaking in front of the class. (31%)
17. This class makes you want to learn more. (28%)
13. The competition in this class makes you work harder. (26%)
4. The atmosphere in this class makes you feel like working. (18%)

Here again, the students' mixed responses to these items suggest that the enrichment opportunities being provided to students are not equivalent opportunities for all students. Further, the students for whom the classroom enrichment opportunities are "just right", do not constitute a majority group of the students.

Table B identifies the number of items for which a large majority of the students (58% or greater) expressed agreement within each class. In six of the ten classes, the large majority of the students identified three or fewer of the items presented as benefits that they were experiencing in their class. This most likely speaks to the difficulty of either accommodating enrichment in the junior secondary classroom or providing for it effectively or both. Other cross-sectional research of classroom perceptions in grades 6 through 12 (Walberg et al, 1973) has also found unfortunate trends for the Grade 9 year to be the case.

Grade 12

The Grade 12 classes also completed the Classroom Enrichment Index II. For all classes combined, the overall percentages of students selecting the response option, "Sometimes true, sometimes false", ranged from 10% to 42% with an average of 26%. In data analyses, the response options, "True" and "More true than false", were collapsed to identify the percentages of students expressing agreement with each of the items.

Table C indicates the percentages of students overall and within each class who expressed agreement with each of the items. For all classes combined, a large majority (58% or greater) of students expressed agreement with the six items listed below:

15. You have to work hard to do well in this course. (84%)
3. The teacher has high expectations of students. (74%)
2. In this class, topics are covered in depth. (71%)
19. A high level of thinking takes place in this class. (70%)
10. The course is challenging and stretches you to the limits of your ability. (65%)
8. The class discussions make the course interesting. (58%)

These items and their agreement rates portray a strong, general image of the Grade 12 classes as being demanding, challenging, and engaging in certain ways.

The following "benefits" items obtained the lowest rates of agreement:

12. I like the projects or assignments in this class. (23%)
7. The assignments we do give room for creativity. (23%)
9. The oral presentations increase our confidence in speaking in front of the class. (20%)

These low agreement items contrasted with the high agreement items suggest that a subject-centered orientation is quite dominant. While this orientation provides for benefits in the area of intellectual challenge and stimulation, it appears, in these classes, to be less likely to provide for creative or engaging project work or development of oral presentation skills. This being the case, it would be desirable for teachers at earlier grade levels to provide even greater opportunity for these kinds of enrichment benefits before the pressure for a subject-centered orientation becomes as

Table C: Percentages of Students Who Expressed Agreement With Items on CEI - II in Grade 12 (N = 156)

		Individual Classes							
	All Students Combined	1	2	3	4	5	6	7	8
1. Get work done because of behavior of students	57	85	94	27	52	65	63	38	33
2. Topics are covered in depth	71	90	72	68	57	85	84	69	44
3. Teacher has high expectation of students	74	95	78	100	52	80	84	50	44
4. Atmosphere makes you feel like working	36	70	44	32	33	45	32	12	11
5. Not afraid to express your ideas	56	45	61	32	43	80	63	88	50
6. Easy to pay attention as lessons move quickly	45	50	56	41	38	60	26	44	44
7. Assignments give room for creativity	23	15	33	41	14	30	16	12	22
8. Class discussions make course interesting	58	45	41	46	57	95	47	81	56
9. Oral presentations increase confidence	20	10	12	23	19	30	6	13	44
10. Course is challenging and stretches ability	65	90	67	86	52	65	79	38	33
11. Learn how to discuss ideas effectively	42	21	28	59	43	65	26	56	33
12. Like the projects or assignments	23	35	33	14	19	20	11	25	28
13. Competition makes you work harder	38	70	56	27	14	53	37	31	17
14. Don't like the pressure of competition	20	10	17	50	19	30	5	19	100
15. Have to work hard to do well in course	84	100	94	86	86	79	79	88	56
16. Helps find new things to be interested in	39	60	28	27	43	50	37	44	24
17. Makes you want to learn more	34	60	28	32	29	45	26	31	17
18. Gives opportunity to think and develop ideas	56	35	28	50	62	85	53	94	44
19. High level of thinking takes place	70	90	78	86	62	80	90	56	11
Number of items for which 58% or more of the students expressed agreement	6	10	7	6	3	11	7	5	0

intense as it apparently does in senior secondary grades. (It was noted, however, that items 7 and 9 were also among those obtaining the lowest rates of agreement in the Grade 9 classes.)

Table C identifies the number of items for which a large majority of the students (58% or greater) expressed agreement within each class. In six of the eight classes, the large majority of students agreed with five or more of the "benefits" items. All of the classes, however, tended to appear strong on the six items listed above as high agreement items.

Summary

Looking across the results for all three grades, the Grade 9 classes appear to be the ones in which it is most problematic or difficult to provide activities which are equivalently engaging and challenging for all students. It is also the grade level in which only a small percentage of students indicated that the atmosphere in the classroom made them feel like working. The high variability among classes in Grade 9 suggests that in some classes, more so than others, it is particularly difficult to either incorporate or effectively provide enriching activities.

Given what is not being accomplished as things are now in most of the Grade 9 classes, it appears that there is much that may be gained and little to be lost in the area of enrichment benefits if some alternate pedagogic or administrative practices are explored. Without more knowledge about the students' characteristics it would be presumptuous to speculate about which pedagogic or administrative practices would offer most promise. As things are now, however, it appears that for most Grade 9 students, enrichment benefits are not being effectively provided.

Responses to Open-ended Questions

Open-ended question

Following each of the Classroom Enrichment Indexes (for Grades 12, 9, and 6) an open-ended question was asked: "What makes this class special for you?" The question was designed to elicit thoughts, feelings, experiences that students might freely offer to characterize what it is like for them to be in a particular class. The choice of the word "special" could be interpreted as prejudicing the responses in a positive way insofar as to be "special" usually connotates something as having a positive value and importance beyond what is usual. However the utility of the word is corollary to this, namely that it simply asks students to note what stands out for them, what shows itself as worthy of comment. The fact that some students did indeed express negative comments indicates a level of freedom given to interpreting the question. The value of the open question is that is allows respondents to express themselves with minimal interference of the sort more formal, specific questions might impose and this provides the researcher with information which can be interpreted from within the collective voice of those being studied. Most responses were brief -- one to five lines each.

General comments:

The evidence suggests overwhelmingly that students on the whole are happy with their classes. Except for certain rooms where there is more generalized dissatisfaction, students surveyed find the time spent in class to be positively spent in most respects. Even in cases where the subject matter is considered "boring", students are quick to note often compensatory aspects such as the teacher's personality, the atmosphere in the class, relations with other students, etc.

What is particularly interesting is the fact that the characterization of classroom life by students is almost uniform across the three grades examined. That is, students in Grade 6 talk about their classes in much the same way as do Grade 12 students. And the descriptions have less to do with the actual subject taught than with what might be described as the quality of life present in the room. This suggests that there is a deep-structure reality to classroom experience which transcends the explicit curriculum or pedagogic agendas formally sanctioned at any particular moment. Also it should be noted that almost without exception, even in those classes which elicited the most enthusiastic response in students generally, there were voices of dissent. No pedagogic practices seem to be able to appeal to everyone. Students themselves sometimes have personal agendas which are not available to the influences of the school or classroom.

What makes a class special for students? Certain responses are made repeatedly, and we will portray them in terms of themes each with a brief description and interpretation. Two sample student comments from each grade will be provided to illustrate each point made. The order of the themes reflects the frequency of their being mentioned. The theme dominant throughout all three levels is that the teacher is the most important factor in making the class special.

Theme 1: The Teacher Makes the Class Special

The students surveyed generally appreciated their teachers. But what specifically is it they valued, and what aspects were a cause of concern? Here we can develop a profile of the teacher, who, in students' experience at least, makes a class special; it will also be possible to describe characteristics of teachers that cause difficulty for students.

1.1 A Special Teacher Makes the Class "Interesting"

"Interesting" was the most common description used across all three grades. (It was used 28 times by Grade 6 students, 36 times by Grade 9, and 39 times by Grade 12.) What does it mean for a teacher to make a class "interesting"? The term seems so general as to be not useful for research purposes, because it does not refer to anything in particular. But perhaps it may be this lack of referentiality or specific contingency that says something important, because to be "interesting" means, literally, to be able to draw attention to what is "essential", (Latin inter and esse *to be*). So an interesting teacher is special to students because somehow he or she is able to draw students into a sense that what is going on in class really matters, not just in some contingent way, (e.g., learn this and you will pass the course) but in the sense that what is being considered is of fundamental concern humanly speaking.

1.2 A Special Teacher "Understands Us"

This remark by a Grade six student captures a sense expressed by many students in many different ways. Grade 9 students used the words "understanding" ("a nice understanding teacher"), "understand" ("If I don't understand the teacher explains it to me") and "understands" ("he understands me") most frequently, (thirty - five times in total) but the sentiment may be broadly interpreted from comments from other grades as well.

Here is a sample of student comments:

> __________ is a very good teacher, and makes learning easier by fully explaining ideas, especially if some students aren't sure .... He also doesn't intimidate students who are slower and encourages them to come for help. (Grade 12)
>
> __________ is a very caring teacher .... If I or anyone else are having problems she seems more than glad to assist us. (Grade 12).
>
> the teacher is firm and strict but still nice and easy to talk to. (Grade 9)
>
> the teacher respects your feeling like the students do. When he lectures, he talks like Adult to Adult, not Adult to child. When there are questions you can't answer, he helps you understand them to answer them (Grade 9).
>
> I tell Mr. __________ what's happened to me over the weekend and I know he cares about my problems. (Grade 6).
>
> The teachers they are understanding, not too strict, they are fun and they just make school a fun place. (Grade 6).

The meaning of "understanding" is a central issue in interpretive inquiry in educational research, with a whole literature concerned with the question of what is involved in the claim of understanding another person, or being understood by them. In general terms, though, to understand another means to be able to enter into the others' point of view, to care enough to want to understand him/her, and to be willing to be vulnerable or changed by the other person in order to come together to share a common understanding of what is involved in being together.

1.3 A Special Teacher Has a Sense of Play

We use the term play here to describe a complex of feelings and attitudes expressed by students in different ways. Grade 6 and 9 students referred to the way a teacher could make the class "fun"; in fact this term was used over a hundred times by those grades. Grade 12 students hardly ever referred to "fun" but they did make reference to a teacher's sense of humor and his or her ability to laugh with the class as being qualities that made the class special. Some sample comments:

> Although __________ lectures a great deal, he knows how to mix his humor and explore the more interesting topics of this course. (Grade 12)

> If Mr. __________ did not crack jokes and insults and just ignored us, it would mean that he probably didn't care what we did in his class. He made us think about ourselves and open up and discuss our ideas. (Grade 12)
>
> Mr. __________ is a good guy and he keeps us organized when we are really brats (with his sick humor). (Grade 9)
>
> __________ makes jokes and we make jokes and he is not as serious as other teachers. Other teachers don't like to have a little fun, like he does, so their classes are boring. (Grade 9)
>
> The teacher and students are easy to talk to. We do interesting things and have fun games and projects. Sometimes our teacher lets us have a fun period. We work hard but Mrs. __________ makes it fun, like a game. (Grade 6)

It would be worth exploring in more depth than is possible here what is involved in the experience of having fun, or of enjoying a sense of humor with a teacher, because clearly from the students' perspective such experiences constitute the difference between a pedagogy of the routine and a pedagogy which makes the classroom a more wholesome place to be. Indeed the positive value that students assign to the ludic (the playful) may stand as a mark against what students experience generally as deadening pressure to seriousness, a pressure which they intuitively understand as not helpful to their own growth and progress.

The comparatively low frequency of "fun" as a description used by Grade 12 students, however, may be linkable to the fact that the senior students valued other teacher characteristics not mentioned by Grades 9 and 12, such as the ability of the teacher to "challenge" students "to work hard and do well", to "think", to "work up to your ability" etc. These remarks indicate that Grade 12 students in general seem to be more serious about their work and have a genuine desire to be successful academically in their last year of school.

1.4 Negative Characteristics of Teachers

It needs to be noted that students seem to be quite clear about characteristics of teachers that they do not find helpful. These qualities were definitely small in number compared to favorable ones but we note some of them here as an aid to clarifying how students experience some teacher practices. We might note too that the teachers who received the most negative comments often also received the most positive. For example one teacher received severe criticism for work "overload", for having "favorite students", for "causing frustration" and for using "bad methods". Yet other students commented this same teacher was "interested in everyone", offered the "most effective course in high school" and was "a great motivator".

We simply cite the following examples of students' comments:

> I absolutely can't stand the actual teaching techniques (simply assigning reading). (Grade 12)
>
> The teacher's been away the majority of time, and I'm not really getting anything out of the course. (Grade 9)
>
> ... all I do is sit at the back of the class and listen and copy Boards of Notes. (Grade 9)
>
> ... he gives DTs (detentions) for no reason! (Grade 6)

If there are general thematics running through these comments, we might characterize them as: students ask for a teacher who engages them personally, who is present for them professionally, who involves them in activities that are meaningful, and who is fair and just.

Theme 2: Friends Make the Class Special

After the teacher, what makes a class special to most students is the fact that they have friends in the room. The most direct and frequent references to the value of friends occurs in Grade 6 (61 times), and Grade 9 (26 times). In Grade 12 "friends", as such, are barely mentioned although there is a much clearer sense of the "students" as having a collective and mutually supportive identity. Some sample comments:

> I think this class is special because ... no matter who we are or what type of status we have we are all friends with each other and most of the time everyone is included in group projects. (Grade 12)
>
> My friends are in this class, otherwise I would not have survived. (Grade 12)
>
> I am not too brilliant ... other classmates help me out. (Grade 9)
>
> This class is special because my best friend is in it. (Grade 9)
>
> I am really glad that most of my close friends are in this class. (Grade 6)
>
> We are usually nice to each other. (Grade 6)

The value that students place on the support of their peers is hardly surprising given the amount of time students are requested to be together, not by choice, every day of the school year. It would be a difficult life for students if, under such circumstances, they consistently felt alienated from one another. What is encouraging from this survey is to note that there were no formal complaints raised by students against each other. Even the competitiveness mentioned several times by Grade 12 students is portrayed in a positive light (e.g. "The competitiveness is good because it makes the pupils strive for excellence"). This general tone of good feeling between the students surveyed here contrasts markedly with findings typically found in larger urban centres and inner city schools. It would be interesting to explore further how this sense of collective identity and support is constituted for these students.

Theme 3: Class Discussions Make the Class Special

This is a theme which arises almost exclusively at the Grades 9 and 12 levels. Grade 6 students convey a sense of themselves as busily going about their various tasks and assignments with an interest in learning as a more or less individual affair -- done cooperatively with others perhaps (as in a joint project) but with little notice given to the way knowledge is cooperatively achieved. At the secondary levels, students place great value on talking together and formal discussion as modes through which learning and understanding about the world are gained.

> I enjoy this class because there are alot of class discussions ... which makes the class interesting. (Grade 12)
>
> The things that make this class special for me is that you can express your feelings without worrying about being laughed at and told you are crazy ... . (Grade 12)
>
> I think what makes this class sort of special to me is that we have freedom to speak. We can discuss our ideas aloud without being scared or embarassed. We talk and discuss things more, which allows me to understand the topic better. (Grade 9)
>
> Things that make this class special to me is: When we do oral work I get really involved and it's really interesting. Sometimes we get into things about what we did in our life when we were younger, it's interesting and fun. When we have oral discussions sometimes we might talk about things involving our personal life, which helps us make decisions alot. (Grade 9)

Some subjects such as English and Social Studies clearly lend themselves more easily to class discussions but the degree to which (secondary) students obviously appreciate the opportunity to speak together indicates that, pedagogically speaking, the place and value of orality in the classroom requires more formal attention. Indeed recent research in language theory indicates that speaking together , rather than being simply an instrumental communicative activity which serves individual purposes is far more related to the human sense of community. As such, "discussion" as a form of classroom practice should not be regarded as a superfluous activity but rather as something completely necessary to any effective pedagogy.

Miscellaneous Remarks About the Open-ended Question Survey

Gathering student responses in the manner of this survey, and then organizing the responses and interpreting them in the ways we have, affords possibilities for saying things and raising issues that can't be achieved in other ways of doing research. But there are limitations too. Deriving themes, for example, brings an organization to otherwise disparate material, but the themes themselves become a block to elements and aspects which do not fit the themes yet which nevertheless may be important to the overall flavor and sense of the material. Teaching and classroom life are linked together in a very complex conversation which resists easy description. The uniqueness of each person, for example, can't be "thematized" and at the same time preserved as uniqueness. Would it be possible to explain, with a prior rationality, a student's appreciation of "the smile on our teacher's face" and then try to standardize "smile" as something all effective teachers should do? No, the smile of that particular teacher is reflective of something deep, something special to the teacher which, to be understood, requires a deep understanding of that teacher's life and his or her special life with the class. So interpretations such as we have made bring some things to the surface but occlude others. What we have tried to do is provide a sense of things from the students' point of view, yet their voice is still needed to complete the task.

APPENDIX C

Table D

Opinions of Teachers and Administrators Prior to Training (N = 281)

				% of responses*				
Statement	N	Srongly Disagree	Disagree	Neutral	Agree	Strongly Agree	M**	SD**
1. Teacher supervision and evaluation are the same thing.	274	23	45	12	17	3	2.33	1.09
2. Teachers should be supervised on a regular basis.	277	3	9	18	54	15	3.69	0.94
3. Most supervisors are well-qualified and are effective.	272	10	30	38	21	1	2.71	0.93
4. Effective supervisors clearly tell teachers what was good and bad in an observed lesson.	276	12	18	12	42	16	3.33	1.28
5. Supervision activities can improve teacher effectiveness.	279	1	4	9	62	24	4.05	0.73
6. Supervisory activities that occur once every two years are sufficient for experienced teachers.	269	9	23	16	40	12	3.23	1.18
7. I feel more comfortable being supervised by someone who is located in the school.	277	1	3	28	42	26	3.87	0.88
8. Existing supervisory practices are satisfactory.	277	11	30	31	21	7	2.84	1.09
9. Presently, supervisors involve teachers in deciding what the supervisor will observe and the type of information to be collected during a visit.	270	16	27	26	25	7	2.82	1.19

*Percentages may not add up to 100 because of rounding errors.

**Based on a 5-point scale where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Table E

Administrators' Pre-Project Perception of Existing and Ideal Supervisory Practices (N = 59)

VARIABLES % of responses**	Existing Practices					Ideal Practices				
	N	Agree	Disagree	M*	SD*	N	Agree	Disagree	M*	SD*
1. Supervisors involve teachers in deciding what the supervisor will observe.	59	29	25	3.03	.93	59	97	0	4.68	.54
2. Supervisors limit what is to be observed to a few specific concerns.	59	27	32	2.93	.87	59	85	5	4.17	.81
3. Supervisors record subjective feelings about whether the class is good or bad.	59	63	5	3.70	.82	59	12	57	2.36	1.08
4. Supervisors tell teachers what was good and bad concerning the observed lesson.	58	83	2	4.00	.65	58	38	48	3.05	1.44
5. Supervisors meet with teachers after visit to discuss what was observed.	59	63	10	3.73	.91	59	100	0	4.93	.25
6. Supervisor gives the teacher opinions regarding the teacher's teaching.	58	71	2	3.84	.70	57	32	44	2.96	1.34
7. Supervisors give teachers lots of praise and encouragement.	59	56	3	3.64	.74	59	83	3	4.27	.89
8. Supervisors modify their objectives to accomodate teacher priorities.	59	17	41	2.73	.78	58	91	2	4.21	.72
9. Supervisors listen more than they talk in a conference.	59	12	44	2.66	.84	59	88	5	4.27	.87

*Based on a 5-point scale where 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Usually, 5 = Often

**Percentages do not add to 100 because "sometimes" responses are not included as either agree or disagree

Table F

Administrators' Opinions About Strategies Commonly Used by Evaluators (N = 102)

		% of responses*					
Variable	N	Essential	Desirable	Acceptable	Not Accept.	M	SD
1. Teacher had written job description.	101	41	42	15	3	1.80	.80
2. Standards of performance developed for teacher.	99	52	43	4	1	1.54	.63
3. Meet with teacher prior to observation.	102	91	8	1	-	1.10	.33
4. Found out teacher expectations of students during observation.	102	78	17	6	-	1.28	.57
5. Found out teacher concerns or problems.	101	66	32	2	-	1.36	.52
6. Suggested variety of observation techniques which could be used.	101	40	50	7	3	1.73	.72
7. Teacher had input in determining observation data to be collected.	102	59	36	5	-	1.46	.59
8. Recorded impressions about appearance of classroom.	102	20	41	31	8	2.28	.87
9. Made verbatim notes of classroom dialogue.	101	14	42	35	10	2.41	.85
10. Recorded data on teacher questions for later analysis.	102	40	49	11	-	1.71	.65
11. Recorded data on teacher response to student questions.	101	38	50	12	1	1.76	.70
12. Recorded data on student on-task behavior.	101	42	50	8	-	1.66	.62
13. Recorded data on patterns of students' responses.	101	32	52	14	2	1.86	.72
14. Made audio recordings of lessons.	101	7	34	50	9	2.61	.75

cont'd ...

(cont'd)

Variable	N	Essential	Desirable	Acceptable	Not Accept.	M	SD
15. Recorded data on teacher movement patterns.	101	17	50	32	1	2.17	.17
16. Recorded data on student movement patterns.	100	14	52	34	-	2.20	.67
17. Made video recordings	102	13	40	42	5	2.39	.77
18. Recorded data on behavior of specific student.	100	11	40	40	9	2.47	.81
19. Recorded subjective data: quality of student/teacher interaction.	99	17	25	29	28	2.69	1.07
20. Remained in classroom at least 30 minutes.	102	56	40	2	2	1.50	.64
21. Examined teacher planbook.	102	37	37	20	6	1.94	.90
22. Checked program was in accord with Alberta Program of Studies.	99	41	41	11	6	1.82	.86
23. Examined Record of Student Achievement.	99	29	43	22	6	2.05	.87
24. Examined student work.	102	35	51	12	2	1.80	.72
25. Met teacher after observation.	102	94	6	-	-	1.06	.24
26. Solicited teacher data analysis.	100	76	22	1	1	1.27	.53
27. Encouraged teacher inferences and opinions about data.	102	71	26	2	2	1.35	.62
28. Encouraged teacher consideration of alternative teaching techniques/explanations of classroom events.	102	53	36	8	3	1.61	.76
29. Listened more than talked during post observation conference.	102	50	45	4	1	1.56	.62

cont'd ...

(cont'd)

Variable	N	Essential	Desirable	Acceptable	Not Accept.	M	SD
30. Gave praise/encouragement for growth in teaching skills.	102	72	19	5	4	1.40	.76
31. Recommended resources dealing with areas teacher wished to improve.	102	34	53	13	-	1.78	.65
32. Developed recommendations to help teacher improve instruction.	100	40	35	15	10	1.95	.98
33. Developed recommendations in cooperation with teacher.	102	55	39	5	1	1.52	.64
34. Developed plan of assistance as outcome of evaluation.	102	36	42	18	4	1.89	.83
35. Gave teacher evaluation report.	102	90	7	1	2	1.15	.52
36. Teacher had opportunity to respond in writing to report.	102	78	15	5	3	1.33	.71
37. Teacher had recourse to formal appeal.	101	86	9	3	2	1.21	.59

* Percentages may not add to 100 because of rounding errors.

APPENDIX D

The
University of
Lethbridge

4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
403-329-2111

Faculty of Education
329-2725

February 18, 1987.

Case Study Participants
Medicine Hat Model for
Teacher Supervision and Evaluation

Dear Colleague:

The case study project is one part of a study to evaluate the efficacy of the Medicine Hat Model for Teacher Supervision and Evaluation. The particular purpose of this part of the study is to provide qualitative data that gives descriptions and interpretations of:

1. the school board, school, and personal teaching contexts into which the teacher supervision and evaluation model was introduced. (Knowledge of the context will provide a basis for the interpretation of the qualitative data yielded by the case studies.)

2. participants' experiences of, attitudes towards, and perceptions of the innovation: its introduction and process of implementation; its use and effect upon the teaching, learning and professional development of the participants.

3. how the project unfolds and manifests itself in different settings and with different people.

4. knowledge of critical variables related to the individually and collectively advantageous use of the innovation for professional development purposes.

Since an emphasis will be on understanding and representing how educators, both individually and collectively, experienced the innovation within their particular professional contexts, our attitude is that we are students of your experiences. We are, then, co-investigators with you of what happened and what you learned from the teacher supervision and evaluation project. You are the experts in this regard and we wish to work with you in a collaborative way to document what you have learned. We wish our relationship, then, to be collegial, horizontal and one characterized by openness, honesty, and trust. We are not interested in what you think we want to hear, but what actually occurred. Without that level of trust our data are worthless. This is an opportunity for you to provide an honest perspective of your participation in this project. The case study data will carry your voice into policy decision making.

We understand some of the concerns you may have regarding case studies and we offer the following suggestions about how we perceive sharing information:

1.Control of Data
Why should you trust us? What will happen to these data? As co-investigators you have control and veto over how the data will be used. Any informal working documents that will be circulated, public and final reports will be subject to your vetting and validation with respect to parts of the study in which you have been involved. You will be invited to adapt and modify these accounts to accurately reflect your perceptions and express interpretations of data in a constructive way. Any disagreements as to interpretation will be subject to change as you request. The possibility exists, of course, that co-investigators may wish to be co-authors of various reports.

2.Anonymity and Confidentiality
Since this is an evaluation project conducted for the purposes of the Medicine Hat School Board and the case study schools will be known, it is impossible to guarantee complete anonymity. We can, however, guarantee complete confidentiality for actual conversations and interviews that occur as part of the project and anonymity of authors of particular statements unless otherwise negotiated with you and Michael Pollard or Richard Butt. Any tape recordings or field notes taken during any aspect of this study, then, can only be accessed by the co-investigator(s) concerned, the coordinators of this study or research assistants. Any use of direct quote(s) of participants will be negotiated with the person(s) concerned.

Since we know that you possess the major expertise with respect to what it means to experience and live through the innovation, and we know, as well, that you will be co-investigators with us in these case studies we would like to invite you to collaborate with us in designing how the investigation is to take place.

In order to facilitate this process we have generated a series of questions that might help. We would like to suggest that several members of your school staff join with us as a steering committee to work out methods and procedures. We would then consult with members of staff who might be deeply involved prior to bringing the plan for staff approval.

In working out the methodology and procedures we need to remember that you have busy professional schedules and so do we. We do have a limited amount of money that might be used to free some people for limited amounts of time for some parts of the study.

Bearing in mind the size of your school staff:

1. How might we gather data?

2. Will we gather data from both teachers and administrators? From those who have had training and use the innovation? From those who are in training at the moment? From those who have not had

training but have been supervised?

3. To whom might we talk to obtain a comprehensive reading of the context of the school, its history, etc.?

4. How might we sample opinion about the innovation?

5. Are there aspects of the innovation, training, or implementation that we, as co-investigators, should directly experience? How?

6. How can we see the innovation in use and gather data on how these uses are perceived by supervisor/supervisee?

7. Can we organize the procedures and data collection into a manageable time frame?

8. Other Questions?

Sincerely yours,

Michael Pollard	Richard Butt
Associate Professor	Associate Professor
Faculty of Education	Faculty of Education

/mjp.

N.L.C. - B.N.C.
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